SASKATCHEWAN CANCER AGENCY

1999 - 2000 ANNUAL REPORT

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Letter of Transmittal

The Honourable Pat Atkinson
Minister of Health
Province of Saskatchewan
Legislative Building
Regina, Saskatchewan
S4S 0B3

Dear Ms. Atkinson:

As the Chairperson of the Saskatchewan Cancer Agency Board of Directors, I have the honour to submit herewith the report of the activities of the Saskatchewan Cancer Agency for the fiscal year ending March 31, 2000.

Respectfully submitted,

(Ms.) Pat Krueger
Chairperson

Mission...

"Excellence in patient care and cancer control"

Vision...

"An improved quality of life and health of people by minimizing the impact of cancer"

Values...

Respect
Equity
Excellence
Accountability
Compassion
Honesty

Organization – March 31, 2000

Board of Directors

Ms. Pat Krueger, North Battleford (Chairperson)
Ms. Kathy Zaitsoff, Saskatoon
Dr. Borden Bachynski, Regina
Ms. Lena Dubray, Meadow Lake
Ms. Marion Heavin, Melfort
Dr. Craig Milne, Regina
Ms. Jean Perkins, Codette
Dr. David Popkin, Saskatoon
Mr. Gary Semenchuk, Regina
Mr. David Wild, Odessa (resigned August 1999)

Management Coordinating Committee

Mr. Bob Allen	Chief Executive Officer
Mr. Dennis Karakochuk	Executive Director Human Resources
Ms. Nancy Guebert (February 2000)	Executive Director Education and Corporate Affairs
Dr. Arthur Firth	Executive Director Allan Blair Cancer Centre
Ms. Huguette Gauthier	Associate Executive Director Allan Blair Cancer Centre
Dr. Mohamed Mohamed (November 1999)	Executive Director Saskatoon Cancer Centre
Vacant	Associate Executive Director Saskatoon Cancer Centre
Dr. Svein Carlsen	Executive Director Health Research Division
Mr. Bill Morton (March 2000)	Executive Director Information Management Division
Mr. Kevin Lacey (December 1999)	Executive Director Finance
Ms. Valerie Lusk (until October 1999)	Director Finance
Vacant	Executive Director Prevention & Early Detection Division

Report of the Chairperson

The 1999 – 2000 fiscal year might well be described as a year of transition, adaptation and adjustment. The arrival of the twenty-first century has provided an opportunity for the Saskatchewan Cancer Agency to review the past, assess the present and plan for the future to ensure its Mission for patient care and cancer control in the Province of Saskatchewan is met.

The challenges facing the Agency should not be minimized. An ever-increasing number of new patients, estimated at 1.6 per cent to 2 per cent per year, require treatment services. The impact on an age-related disease will continue to be felt as the "Baby Boomers" come of age. This translates into increased pressures on staffing, facilities and equipment, both now and in the future. Costs of incorporating new drugs, equipment and technologies also have major implications for delivery of treatment services.

The Board is committed to the development of a strong cancer program with a focus not only on diagnosis and treatment but also on education, prevention, early detection and research which can minimize the impact of cancer on the lives of present and future generations. The Agency's logo provides a constant visual reminder of our client focus.

Board Policy Development

Board, senior management and staff came together for a Strategic Planning Retreat in October 1999. The team reaffirmed the Agency's Mission, Vision, Values and Ends Statements as well as beginning development of an Agency-wide strategy for their achievement.

The Ends Statements are as follows:
Incidence, morbidity and mortality from cancer will be reduced.
Treatment will be accessible, affordable and effective.
Population will be knowledgeable about cancer control.
Patient care and cancer control will be enhanced through education and research.
These statements form the basis for the Ends Policies of the Agency, to ensure that it achieves its stated goals.

Recognizing the importance of partnerships and linkages in achieving its goals, the Board formulated a governance policy on stakeholder and community linkages. This policy solidifies the Board's commitment and responsibility to the community in its mandate as set out in the *Cancer Foundation Act.*

Linkages

The Chairperson, Chief Executive Officer and Executive Directors of the Cancer Centres and Health Research Division participated in the Annual Meeting of the Canadian Association of Provincial Cancer Agencies (CAPCA) held in Quebec City in October 1999. This meeting marked the inauguration of the new Association, which provides a formalized linkage of all Cancer Agencies in Canada, Health Canada, the National Cancer Institute of Canada and the Canadian Cancer Society. CAPCA's structure facilitates collaborative initiatives for development of national strategies for surveillance and cancer control, drug use, standardized treatment guidelines, resource planning – human, facilities and equipment – screening programs and research, to mention a few.

The Board endorsed the report of the Task Force on Cervical Cancer Screening presented in December 1999, and recommended to Saskatchewan Health establishment of a provincial screening program based on its recommendations.

101-00904/

Report of the Chairperson

The Agency submitted a formal brief in support of stronger tobacco control legislation for Saskatchewan to the All-Party Special Committee on Tobacco Control and participated in the Committee's hearings held in Saskatoon in March 2000. The presentations of Drs. David Skarsgard and Irfan Maghfoor, with their first-hand experiences treating the preventable diseases of cancer, reinforced the Agency's unique perspective of the costs, both human and financial, attributed to tobacco use and the urgent need for an aggressive tobacco control strategy in this province.

Members of the Board joined senior staff of the Agency in participating in a breakfast meeting for Health Districts held in conjunction with the annual Saskatchewan Association of Health Organizations (SAHO) Conference held in Regina in March 2000. It provided an important opportunity to exchange information with several Health Districts and to receive feedback from them on the activities of the Agency.

Monitoring

The Board extends congratulations and thanks to all members of the Saskatchewan Cancer Agency in achieving the second consecutive accreditation from the Canadian Council of Health Services Accreditation (CCHSA). Members of the Accreditation Committee of the Board were included in the Leadership and Partnerships Team of the Agency in preparation for and participation in the survey conducted by the CCHSA in November 1999. This achievement is an important milestone for the Agency, not only for being the first cancer program in Canada to attain Achieving Improved Measurement (AIM) standards, but more importantly, for now having in place a process to monitor progress and set priorities toward achieving the Agency's goals.

The Board commends its management for successful recruitment of a number of new physicians to the Agency's medical staff. This is not insignificant, considering the shortage of Oncologists in Canada.

On the recommendation of management, the Board approved medical appointments, including:
At the Allan Blair Cancer Centre in Regina – Dr. Haji Chalchal and Dr. Mohammed Hussain, Medical Oncologists.
At the Saskatoon Cancer Centre – Dr. Robert Lowsky and Dr. Irfan Maghfoor, Medical Oncologists.

Board Membership

It was with regrets that the Board accepted the resignation of David Wild in August 1999, owing to the pressures of family commitments. Mr. Wild served as a member of the Board for five years.

Ms. Kathy Zaitsoff was appointed Vice-Chairperson of the Board effective December 1999.

In conclusion, I wish to extend sincere appreciation to all members of the Board, management and staff of the Saskatchewan Cancer Agency for their dedication and commitment to our Mission, Vision, Values and Goals.

Pat Krueger
Chairperson

Report of the Chief Executive Officer

It is my pleasure to provide the following summary of the Saskatchewan Cancer Agency's activities for the 1999 – 2000 fiscal year.

The Board has continued to provide the Agency with guidance and leadership. We are fortunate to have such a dedicated group of individuals led by our Chairperson, Pat Krueger.

Agency Reorganization

The format of this year's Annual Report reflects recent changes in the organization of the Agency. The Agency is now structured to mirror its mandated responsibilities of providing cancer treatment, prevention, research and education services to Saskatchewan residents.

Treatment Services

The Allan Blair Cancer Centre Division and Saskatoon Cancer Centre Division provide excellence in cancer treatment to patients through our medical, radiation and pediatric oncology areas.

Research

The Health Research Division is responsible for research activities related to the basic sciences, epidemiology, clinical trials, translational research and research related to quality of life.

Prevention and Screening

In the area of screening and prevention, the Agency's Prevention and Early Detection Division is responsible for the provincial Screening Program for Breast Cancer.

Education

The Education and Corporate Affairs Division provides education services and communications, both internal to staff and external to the public, as well as strategic planning and continuous quality improvement initiatives.

Resource Management

Resource Management Services provides leadership, policy direction and program support to the Agency through the Finance Division, Human Resources Division and the newly created Information Management Division.

Agency Highlights

The provincial Stem Cell Transplant Program received a successful evaluation from the Agency Board. As a result the program was expanded to include breast, testicular and myeloma cancers.

The Community Oncology Program of Saskatchewan continues to be a success. Twenty-one Health Districts now participate in the provision of chemotherapy at their own facilities rather than at the Cancer Centres.

Report of the Chief Executive Officer

Staff shortages in medical and radiation oncology and radiation therapy continued to challenge the Agency in providing services to Saskatchewan residents. We have been successful in implementing new recruitment initiatives for hiring oncologists and radiation therapists. For example, recruitment efforts led staff to Australia in February 2000 for not only the International Conference for Radiographers and Radiological Technologists, but also to interview several radiation therapist and oncologist candidates.

In June 1999, the Collective Agreement between the Agency and the Saskatchewan Government Employees Union was ratified. The Agency affirmed its commitment to Pay Equity by the establishment of a Pay Equity Committee, which has representation from management and unionized employees.

Top: The Saskatoon Cancer Centre houses the Health Research Division.

Right: A friendly face greets patients at the Regina Cancer Patient Lodge.

In August 1999, the Board approved the purchase of two new replacement mammography machines for the Screening Program for Breast Cancer. One machine was installed in Regina and one in Saskatoon.

The Agency Board approved five additional oncology positions. Two in radiation oncology, two in medical oncology and one in hematology. Thirteen other staff positions were approved including five nurses and five in clerical support.

Approval was received in January 2000 from Saskatchewan Health to purchase a new linear accelerator and three-dimensional treatment planning system for the Saskatoon Cancer Centre. Saskatchewan Health contributed a $1.5 million capital grant for the accelerator and the Agency provided the remaining $1.7 million. This state of the art linear accelerator will offer cancer patients improved radiation treatment for certain cancer types, including prostate cancer.

The Agency's Cancer Registry received the gold award from the North American Association of Central Cancer Registries (NAACCR) for quality, completeness and timeliness of its data. This is the highest award provided and we are proud of the Registry and Health Records staff in the Agency for this achievement.

The 13th Annual Sylvia Fedoruk Prize in Medical Physics was awarded (For additional information see page 48).

Quality Improvement

Accreditation

The Saskatchewan Cancer Agency successfully achieved its second accreditation from the Canadian Council of Health Services Accreditation (CCHSA) in November 1999. Accreditation is one of the most effective means by which the Agency can accurately assess its level of performance through peer review and self-evaluation, focusing on ways to improve care and the quality of life of our patients based upon national standards. The Agency was not only a pilot site for the CCHSA's Achieving Improved Measurement (AIM) standards, but was also the only cancer program in Canada to

be surveyed as a comprehensive provincial program under these new accreditation standards. In total, 130 agency staff as well as representatives from the Agency's community partners, patients and clients actively participated in the accreditation process.

Patient Satisfaction Survey

To continue the Agency's ongoing commitment towards quality improvement, a sample of patients treated at the Allan Blair and Saskatoon Cancer Centres were invited to participate in a patient survey co-ordinated through the University of Saskatchewan, Department of Community Health and Epidemiology. The survey identified that patients, overall, were very satisfied with the quality of care received at the Cancer Centres. The survey also highlighted specific areas where we can improve services, including communication and co-ordination between oncologists and health care providers within and outside the Agency, patient information prior to their first appointment, more information about support groups and waiting times.

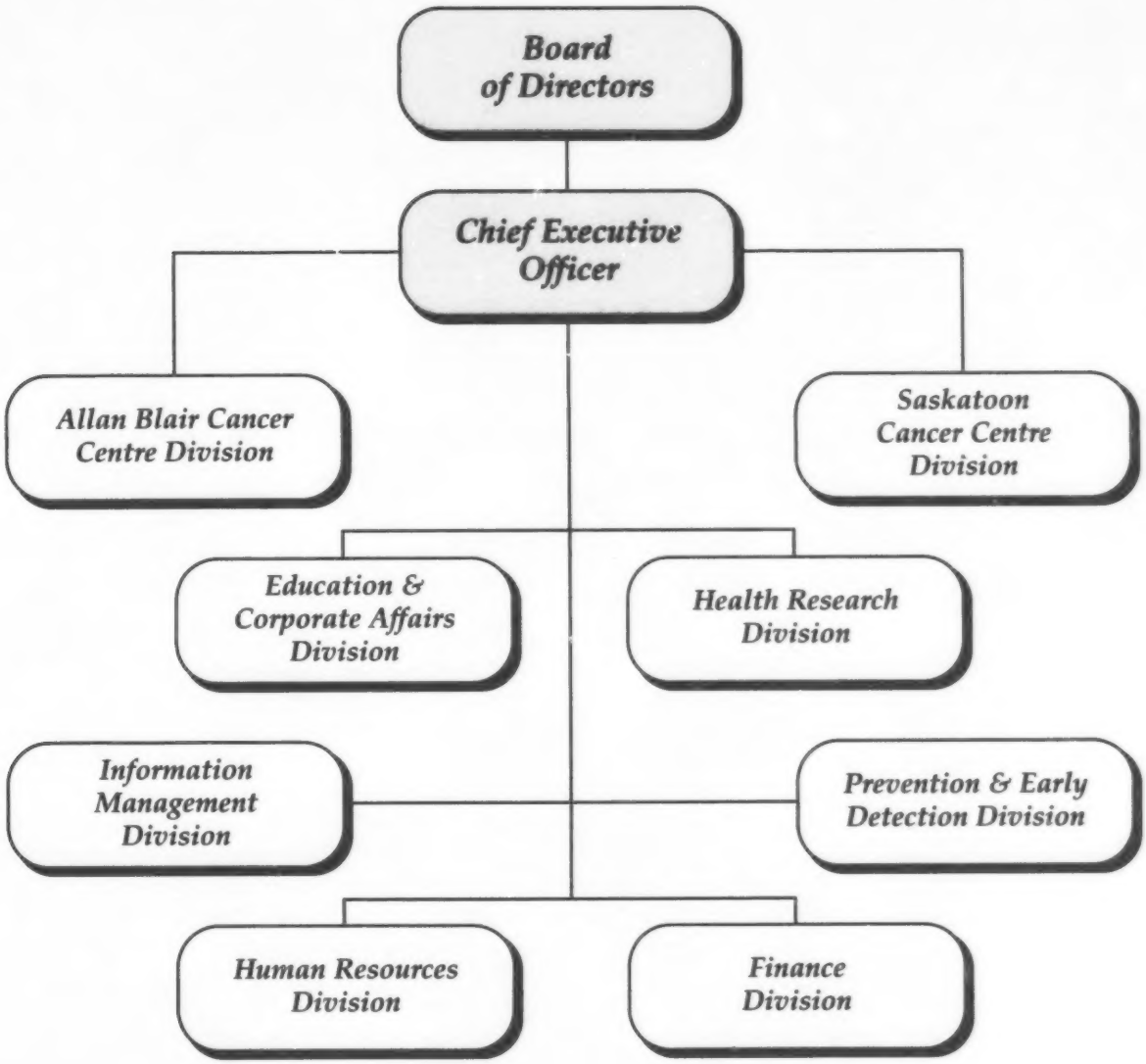
Saskatchewan Association of Health Organizations (SAHO) Focus Group Meeting

The Agency sponsored a focus group breakfast at the annual SAHO Conference held in Regina in March 2000. The purpose was to obtain feedback from Health Districts on the current programs and services of the Agency, to identify other cancer needs and to explore potential areas of collaboration between Health Districts and the Agency.

In closing, I would like to take this opportunity to thank the staff and volunteers for the contributions they continually make on behalf of the Agency in fulfilling our mission of providing excellence in patient care and cancer control for the people of Saskatchewan. I also wish to acknowledge our many partners and other health sector organizations that have contributed to our success over the past year.

Bob Allen
Chief Executive Officer

Organizational Chart



Agency Mandate Area Highlights

Treatment

Allan Blair Cancer Centre

In January 2000, the Lymphoedema Program commenced in partnership with the Regina Health District. There are two components:

An education program for women who have undergone axillary surgery and are about to receive radiotherapy or chemotherapy.

A treatment program for women who have developed the condition.

Please see page 13 for Allan Blair Cancer Centre statistics.

The soft touch of plush toys welcomes children to the Allen Blair Cancer Centre.

Saskatoon Cancer Centre

In November 1999, the Saskatoon Cancer Centre partnered with Palliative Care Services – St. Paul's Hospital/Saskatoon District Health to provide a weekly symptom control clinic for patients. This clinic offered services to 75 cancer patients. The main focus of this clinic is to provide patient support for disease related symptoms, such as pain.

Please see page 14 for Saskatoon Cancer Centre statistics.

Provincial Stem Cell Transplant Program

Within the past year, the Saskatchewan Stem Cell Transplant Program situated at the Saskatoon Cancer Centre, expanded the types of cancer diagnoses eligible for transplantation. Of the 36 new referrals this year for consideration of stem cell transplant, 30 were accepted into the program and 13 were transplanted. The types of cancers included Hodgkins and Non-Hodgkins Lymphoma, Multiple Myeloma, Breast Cancer and Leukemia. Since the inception of the program in 1998, referrals to the program have totaled 62.

Provincial Program for High Dose Rate Brachytherapy for the Treatment of Prostate Cancer

In February 1999, a combined procedure utilizing High Dose Rate Brachytherapy and External Beam Therapy, the first of its kind in Canada, was started at the Allan Blair Cancer Centre. During the present year, this procedure was performed 27 times on 23 patients.

Agency Mandate
Area Highlights

The Community Oncology Program of Saskatchewan (COPS)

This program is co-ordinated by the Saskatoon Cancer Centre (SCC) and Allan Blair Cancer Centre (ABCC) in partnership with the Health Districts. This program allows selective chemotherapy treatments to be administered in certified centres throughout the province enabling patients to receive treatment within their own community.

Program highlights included:
32 community facilities from 23 Health Districts have attended the COPS Education Program at either SCC or ABCC. Out of those, there are presently 19 fully certified community facilities, which are able to provide the full range of services offered to patients in the community through the COPS program.

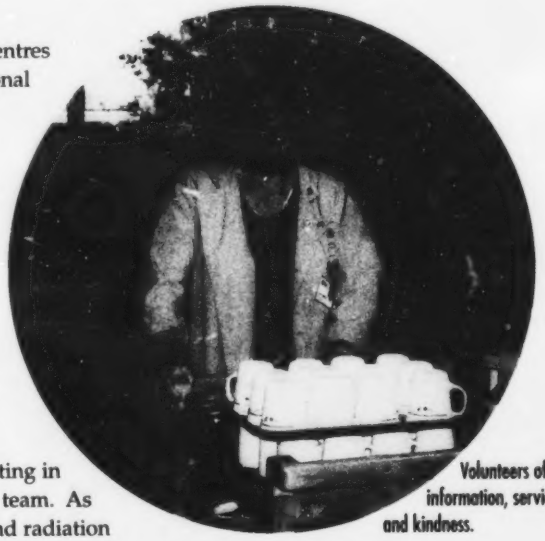
In September 1999, the provincial COPS newsletter named *Reaching Out* was established to provide education and information relevant to the community staff. This newsletter has a national distribution, which has helped form linkages with community cancer programs across the country.

March 4, 2000 was the first Community Oncology Conference for physicians, which took place at the Allan Blair Cancer Centre.

The COPS Co-ordinators continue to travel to the various centres in the province to provide clinical, educational and operational support to staff of the COPS centres.

Supportive Care

Social workers in the Agency, located at the Allan Blair Cancer Centre and Saskatoon Cancer Centre, work in tandem with a patient's treatment program to provide a variety of services including assessment and consultation, personal services and counselling. Each month 650 patients and/or family members are provided counselling and support by social workers at the two Cancer Centres.



Volunteers offer patients information, services and kindness.

Social work contributes to a patient's care plan by participating in patient conferencing with other members of the health care team. As well, they are involved in the monthly medical, pediatric and radiation oncology meetings. They also provide education programs on supportive care to staff at the COPS Centres.

Volunteers are an integral part of the daily operations of the Agency. They will escort patients to their treatments or diagnostic tests and will help a patient select wigs and turbans, among other services. There are 78 volunteers at the two Cancer Centres.

Cancer Patient Lodges

Cancer Patient Lodges located in Regina and Saskatoon provide room and board for out-of-town patients with cancer. They continue to be viewed as a "home away from home" for these patients. The total number of occupied patient beds for 1999 was 8,044.

Prevention

Screening Program for Breast Cancer

In the area of screening and prevention, the Agency is responsible for the provincial Screening Program for Breast Cancer with seven stationary sites around the province, as well as a mobile mammogram unit, which travels into communities not served by the stationary centres. The screening program has the highest participation rate in Canada with over 34,000 annually.

The Client Information System of the Screening Program for Breast Cancer was redeveloped during the year. This new system has resulted in an improved ability to track women through the screening and diagnostics processes and an enhanced ability to record and analyze results. Use of this system can be expanded to include other prevention and early detection programs, for example, cervical screening.

Research

Basic science attempts to determine the underlying differences between normal and cancerous cells. Epidemiology is the study of health and disease in populations and application of this study to control health problems. Translational research takes the results of basic research and applies them in a clinical environment (from the lab to the bedside). Clinical Trials is the scientific method of studying a new cancer treatment, designed for specific types of cancer, within a clinical setting.

The Agency continues to be an active participant in the National Cancer Institute of Canada (NCIC), North Central Cancer Treatment Group (NCCTG), Children's' Cancer Group (CCG), Radiation Therapy Oncology Group (RTOG) and Breast Cancer International Research Group (BCIRG).

Please see pages 40 to 43 for a complete listing of Research Projects.

Education

The Cancer Centres continue to be actively involved in the teaching of medical students, residents, nurses, radiation therapists, social workers and health records technicians.

The Agency remains committed to the ongoing education of its professionals and the public around the areas of treatment, prevention and early detection programs. The Education Services area of the Education and Corporate Affairs Division conducts educational and informational sessions for the public on prevention, risk reduction, early detection and breast screening.

Education Services also conducts Talking Circles with First Nations, and trains Community Health Representatives and Community Health Nurses to deliver cancer education on reserves.

Statistical Tables

ALLAN BLAIR CANCER CENTRE STATISTICS 1995 - 1999

Clinic Appointments

	1995	1996	1997	1998	1999
New Patient Appointments	2,019	1,913	2,038	2,019	2,058
Review Patient Appointments	12,031	12,080	11,605	12,493	13,714
Radiotherapy Treatments	17,357	15,587	15,488	16,700	17,596
Chemotherapy	4,289	4,275	4,655	5,463	3,147

Radiotherapy Treatment Visits by Machine Type

	1995	1996	1997	1998	1999
Brachytherapy	116	83	92	79	143
Linear Accelerator	13,830	12,401	12,703	13,676	14,868
Cobalt	3,024	2,589	2,223	2,697	2,414
Stabilipan	387	514	470	248	171
TOTALS	17,357	15,587	15,488	16,700	17,596

Health Record Activities

	1995	1996	1997	1998	1999
Case Registrations	3,751	3,596	3,790	4,161	4,148
Case Visits Recorded	13,844	14,503	14,220	15,290	14,512
Follow-up Reports	13,375	13,099	12,473	11,816	12,262

ALLAN BLAIR CANCER CENTRE STATISTICS 1995 - 1999

Clinic Appointments

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SASKATOON CANCER CENTRE STATISTICS 1995 - 1999

Clinic Appointments

	1995	1996	1997	1998	1999
New Patient Appointments	1,603	1,793	2,077	2,197	2,042
Review Patient Appointments	13,590	14,239	14,022	13,904	13,393
Radiotherapy Treatments	17,173	17,210	18,522	18,854	17,487
Chemotherapy	5,274	5,571	5,234	5,708	4,896

Radiotherapy Treatment Visits by Machine Type

	1995	1996	1997	1998	1999
Brachytherapy	37	12	17	21	0
Linear Accelerator	16,744	17,146	18,126	18,326	17,041
Cobalt	0	0	0	0	0
X-ray	429	278	379	507	446
TOTALS	17,210	17,436	18,522	18,854	17,487

Health Record Activities

	1995	1996	1997	1998	1999
Case Registrations	3,670	3,761	3,779	3,962	4,134
Case Visits Recorded	13,821	14,108	13,859	13,675	13,032
Follow-up Reports	12,419	12,011	11,778	11,627	12,169

Statistical Tables

SCREENING PROGRAM FOR BREAST CANCER STATISTICS 1995 – 1999

Centre		1995	1996	1997	1998	1999
Regina	# of Mammograms	7,639	8,105	8,727	8,148	9,396
	# of Abnormals	479	645	640	637	707
	# of Cancers	44	59	51	42	58
Saskatoon	# of Mammograms	5,796	6,149	6,742	6,686	7,072
	# of Abnormals	430	507	651	535	605
	# of Cancers	39	31	43	31	35
Swift Current	# of Mammograms	1,201	924	1,296	1,189	1,431
	# of Abnormals	79	60	88	86	108
	# of Cancers	3	5	11	5	9
North Battleford	# of Mammograms	1,561	1,111	1,596	1,351	1,530
	# of Abnormals	83	100	138	96	132
	# of Cancers	6	10	10	5	7
Yorkton	# of Mammograms	2,013	2,380	2,480	2,780	2,712
	# of Abnormals	145	170	192	194	208
	# of Cancers	14	13	19	6	12
Moose Jaw	# of Mammograms	1,445	1,641	1,708	1,787	1,593
	# of Abnormals	118	108	143	141	141
	# of Cancers	11	8	16	10	6
Prince Albert	# of Mammograms	2,355	1,737	2,374	2,037	2,255
	# of Abnormals	153	127	174	172	196
	# of Cancers	11	7	18	9	8
Mobile	# of Mammograms	7,601	6,843	9,035	10,115	9,085
	# of Abnormals	573	550	643	735	646
	# of Cancers	37	39	65	40	46
TOTAL	# of Mammograms	29,611	28,890	33,958	34,093	35,074
	# of Abnormals	2,060	2,267	2,669	2,596	2,743
	# of Cancers	165	172	233	148	181

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INCIDENCE – AGE-SPECIFIC NUMBERS (MALE) – 1999

SITE	AGE GROUPS														
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0	0	0	0	1	0	1	0	1	1	2	0	4	8	9	27
Oral Cavity	0	0	0	0	0	0	1	2	1	3	1	6	2	2	5	23
Head and Neck	0	2	0	0	0	0	0	2	0	3	3	3	2	3	2	20
Esophagus	0	0	0	0	0	0	1	0	1	2	3	4	4	4	4	23
Stomach	0	0	0	0	1	1	0	1	4	4	5	10	14	10	16	66
Colon	0	0	0	1	3	1	2	8	8	8	11	23	41	38	48	192
Rectum	0	0	0	0	1	1	2	5	5	8	9	13	22	17	25	108
Liver	0	0	0	0	0	0	1	0	0	0	0	2	1	2	1	7
Gall Bladder and Biliary Tract	0	0	0	0	0	0	0	1	2	0	0	2	2	2	5	14
Pancreas	0	0	0	0	0	0	0	0	3	5	6	5	7	8	11	45
Digestive Tract	0	0	0	0	0	0	0	0	0	0	0	1	4	2	3	10
Larynx	0	0	0	0	0	0	0	1	2	5	5	3	6	2	4	28
Trachea, Bronchus, and Lung	0	0	0	0	1	0	4	7	13	26	50	59	58	54	58	330
Respiratory System	0	0	0	0	0	0	2	1	0	1	1	3	1	2	2	13
Bone and Connective Tissue	2	2	0	1	3	4	1	2	0	0	0	2	0	2	1	20
Malignant Melanoma of Skin	0	2	0	0	1	1	5	5	6	10	7	5	5	10	11	68
Breast	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2	6
Prostate	0	0	0	0	0	0	2	3	19	26	90	144	144	175	136	740
Male Genital Organs	0	0	7	7	4	6	3	3	1	1	0	2	0	2	3	39
Kidney	0	0	0	0	0	2	1	1	0	8	8	16	11	11	5	63
Bladder	0	0	0	0	0	0	5	6	6	11	16	24	19	32	41	160
Other Urinary Tract	0	0	0	0	0	0	0	2	1	1	1	0	0	0	2	7
Brain & Central Nervous System	4	2	0	0	5	3	2	2	1	5	4	6	3	4	3	44
Thyroid	0	0	0	0	0	4	1	0	4	2	1	1	2	1	1	17
Other Endocrine Glands	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lymphoma	2	1	0	1	2	1	9	8	6	7	7	12	14	15	13	98
Hodgkin's Disease	1	0	1	3	1	1	1	1	2	1	0	1	1	1	0	15
Multiple Myeloma	0	0	0	0	0	0	1	2	1	4	3	2	5	5	4	27
Leukemia	2	0	0	1	2	1	3	6	6	11	12	16	13	12	13	98
Primary Unknown	0	1	0	0	0	2	3	3	3	5	4	4	8	8	14	55
Other Primaries	0	0	0	0	0	0	0	0	1	0	1	0	1	1	3	7
TOTALS	11	10	8	14	25	28	51	73	97	159	250	370	394	435	445	2370
Non-Melanoma Skin Cancer	0	1	2	3	4	22	41	65	64	101	106	168	188	238	420	1423
Other: In Situ	0	0	0	0	0	1	4	4	6	6	17	30	14	33	43	158
TOTALS	0	1	2	3	4	23	45	69	70	107	123	198	202	271	463	1581

Statistical Tables

INCIDENCE – AGE-SPECIFIC NUMBERS (FEMALE) – 1999

SITE	AGE GROUPS														
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0	0	0	0	0	0	0	0	1	1	0	0	1	1	2	6
Oral Cavity	0	0	0	0	0	0	0	1	1	2	0	2	1	1	2	10
Head and Neck	0	0	0	0	0	1	0	0	2	0	3	0	1	0	2	9
Esophagus	0	0	0	0	0	0	0	0	0	2	0	1	1	0	6	10
Stomach	0	0	0	0	0	1	1	2	3	1	2	5	5	7	10	37
Colon	0	0	0	0	1	1	3	4	11	13	13	22	32	30	66	196
Rectum	0	0	0	0	0	1	2	5	8	6	6	14	11	17	14	84
Liver	0	1	0	0	0	0	0	0	0	0	0	2	2	1	1	7
Gall Bladder and Biliary Tract	0	0	0	0	0	1	1	0	1	0	3	1	1	1	5	14
Pancreas	0	0	0	0	0	1	0	0	2	5	2	2	10	4	15	41
Digestive Tract	0	0	0	0	0	0	0	0	0	1	1	1	1	3	1	8
Larynx	0	0	0	0	0	0	0	0	1	0	1	2	1	0	1	6
Trachea, Bronchus, and Lung	0	0	0	0	1	0	4	3	14	29	26	43	54	52	29	255
Respiratory System	0	0	0	0	0	0	0	0	2	0	0	1	0	1	2	6
Bone and Connective Tissue	3	1	0	0	0	0	1	0	1	1	0	0	1	1	1	10
Malignant Melanoma of Skin	0	0	1	0	1	3	5	5	8	5	3	4	4	12	5	56
Breast	0	0	0	3	6	19	48	45	73	70	67	64	94	63	103	655
Cervix: Invasive	0	2	0	8	6	9	6	7	4	7	3	1	4	0	3	60
Uterus	0	0	0	0	2	1	4	5	15	17	14	15	13	17	15	118
Ovary	0	0	0	3	1	3	7	7	6	10	7	9	11	9	11	84
Female Genital Organs	0	1	0	1	0	2	2	1	0	1	0	0	4	3	5	20
Kidney	1	0	0	0	0	0	3	4	5	1	1	7	12	7	9	50
Bladder	0	0	0	0	0	0	1	1	3	6	15	12	6	11	16	71
Other Urinary Tract	0	0	0	0	0	1	0	0	0	0	0	0	2	2	2	7
Brain & Central Nervous System	4	2	0	0	0	5	4	1	1	2	5	4	0	3	1	32
Thyroid	0	1	1	4	1	7	7	4	3	3	3	1	2	0	2	39
Other Endocrine Glands	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lymphoma	2	0	1	0	1	2	3	3	9	5	9	11	13	15	22	96
Hodgkin's Disease	0	1	2	1	1	0	0	1	0	0	0	0	0	0	2	8
Multiple Myeloma	0	0	0	0	0	0	0	0	1	1	1	4	6	7	4	24
Leukemia	9	0	0	1	0	3	1	2	2	6	5	5	13	15	9	71
Primary Unknown	0	0	0	0	0	1	2	3	3	4	5	7	11	14	16	66
Other Primaries	0	0	0	0	0	0	1	1	1	0	2	1	4	1	5	16
TOTALS	21	9	5	21	21	62	106	105	181	199	197	241	321	298	387	2173
Non-Melanoma Skin Cancer	0	1	0	4	9	29	46	36	61	47	70	132	129	167	318	1049
Cervix: In Situ	0	20	106	94	68	61	33	16	4	4	1	3	2	0	0	412
Other: In Situ	0	2	0	2	1	8	10	21	18	17	18	23	24	32	53	229
TOTALS	0	23	106	100	78	98	89	73	83	68	89	158	155	199	371	1690

INCIDENCE – AGE-SPECIFIC NUMBERS (MALE) – 1999

SITE	AGE GROUPS															
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0	0	0	0	1	0	1	0	1	1	2	0	4	8	9	27
Oral Cavity	0	0	0	0	0	0	1	2	1	3	1	6	2	2	5	23
Head and Neck	0	2	0	0	0	0	0	2	0	3	3	3	2	3	2	20
Esophagus	0	0	0	0	0	0	1	0	1	2	3	4	4	4	4	23
Stomach	0	0	0	0	1	1	0	1	4	4	5	10	14	10	16	66
Colon	0	0	0	1	3	1	2	8	8	8	11	23	41	38	48	192
Rectum	0	0	0	0	1	1	2	5	5	8	9	13	22	17	25	108
Liver	0	0	0	0	0	0	1	0	0	0	0	2	1	2	1	7
Gall Bladder and Biliary Tract	0	0	0	0	0	0	0	1	2	0	0	2	2	2	5	14
Pancreas	0	0	0	0	0	0	0	0	3	5	6	5	7	8	11	45
Digestive Tract	0	0	0	0	0	0	0	0	0	0	0	1	4	2	3	10
Larynx	0	0	0	0	0	0	0	1	2	5	5	3	6	2	4	28
Trachea, Bronchus, and Lung	0	0	0	0	1	0	4	7	13	26	50	59	58	54	58	330
Respiratory System	0	0	0	0	0	0	2	1	0	1	1	3	1	2	2	13
Bone and Connective Tissue	2	2	0	1	3	4	1	2	0	0	0	2	0	2	1	20
Malignant Melanoma of Skin	0	2	0	0	1	1	5	5	6	10	7	5	5	10	11	68
Breast	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2	6
Prostate	0	0	0	0	0	0	2	3	19	26	90	144	144	176	136	740
Male Genital Organs	0	0	7	7	4	6	3	3	1	1	0	2	0	2	3	39
Kidney	0	0	0	0	0	2	1	1	0	8	8	16	11	11	5	63
Bladder	0	0	0	0	0	0	5	6	6	11	16	24	19	32	41	160
Other Urinary Tract	0	0	0	0	0	0	0	2	1	1	1	0	0	0	2	7
Brain & Central Nervous System	4	2	0	0	5	3	2	2	1	5	4	6	3	4	3	44
Thyroid	0	0	0	0	0	4	1	0	4	2	1	1	2	1	1	17
Other Endocrine Glands	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lymphoma	2	1	0	1	2	1	9	8	6	7	7	12	14	15	13	98
Hodgkin's Disease	1	0	1	3	1	1	1	1	2	1	0	1	1	1	0	15
Multiple Myeloma	0	0	0	0	0	0	1	2	1	4	3	2	5	5	4	27
Leukemia	2	0	0	1	2	1	3	6	6	11	12	16	13	12	13	98
Primary Unknown	0	1	0	0	0	2	3	3	3	5	4	4	8	8	14	55
Other Primaries	0	0	0	0	0	0	0	0	1	0	1	0	1	1	3	7
TOTALS	**11**	**10**	**8**	**14**	**25**	**28**	**51**	**73**	**97**	**159**	**250**	**370**	**394**	**435**	**445**	**2370**
Non-Melanoma Skin Cancer	0	1	2	3	4	22	41	65	64	101	106	168	188	238	420	1423
Other: In Situ	0	0	0	0	0	1	4	4	6	6	17	30	14	33	43	158
TOTALS	**0**	**1**	**2**	**3**	**4**	**23**	**45**	**69**	**70**	**107**	**123**	**198**	**202**	**271**	**463**	**1581**

INCIDENCE – AGE-SPECIFIC NUMBERS (FEMALE) – 1999

SITE	AGE GROUPS															
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0	0	0	0	0	0	0	0	1	1	0	0	1	1	2	6
Oral Cavity	0	0	0	0	0	0	0	1	1	2	0	2	1	1	2	10
Head and Neck	0	0	0	0	0	1	0	0	2	0	3	0	1	0	2	9
Esophagus	0	0	0	0	0	0	0	0	0	2	0	1	1	0	6	10
Stomach	0	0	0	0	0	1	1	2	3	1	2	5	5	7	10	37
Colon	0	0	0	0	1	1	3	4	11	13	13	22	32	30	66	196
Rectum	0	0	0	0	0	1	2	5	8	6	6	14	11	17	14	84
Liver	0	1	0	0	0	0	0	0	0	0	0	2	2	1	1	7
Gall Bladder and Biliary Tract	0	0	0	0	0	1	1	0	1	0	3	1	1	1	5	14
Pancreas	0	0	0	0	0	1	0	0	2	5	2	2	10	4	15	41
Digestive Tract	0	0	0	0	0	0	0	0	0	1	1	1	1	3	1	8
Larynx	0	0	0	0	0	0	0	0	1	0	1	2	1	0	1	6
Trachea, Bronchus, and Lung	0	0	0	0	1	0	4	3	14	29	26	43	54	52	29	255
Respiratory System	0	0	0	0	0	0	0	0	2	0	0	1	0	1	2	6
Bone and Connective Tissue	3	1	0	0	0	0	1	0	1	1	0	0	1	1	1	10
Malignant Melanoma of Skin	0	0	1	0	1	3	5	5	8	5	3	4	4	12	5	56
Breast	0	0	0	3	6	19	48	45	73	70	67	64	94	63	103	655
Cervix: Invasive	0	2	0	8	6	9	6	7	4	7	3	1	4	0	3	60
Uterus	0	0	0	0	2	1	4	5	15	17	14	15	13	17	15	118
Ovary	0	0	0	3	1	3	7	7	6	10	7	9	11	9	11	84
Female Genital Organs	0	1	0	1	0	2	2	1	0	1	0	0	4	3	5	20
Kidney	1	0	0	0	0	0	3	4	5	1	1	7	12	7	9	50
Bladder	0	0	0	0	0	0	1	1	3	6	15	12	6	11	16	71
Other Urinary Tract	0	0	0	0	0	1	0	0	0	0	0	0	2	2	2	7
Brain & Central Nervous System	4	2	0	0	0	5	4	1	1	2	5	4	0	3	1	32
Thyroid	0	1	1	4	1	7	7	4	3	3	3	1	2	0	2	39
Other Endocrine Glands	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lymphoma	2	0	1	0	1	2	3	3	9	5	9	11	13	15	22	96
Hodgkin's Disease	0	1	2	1	1	0	0	1	0	0	0	0	0	0	2	8
Multiple Myeloma	0	0	0	0	0	0	0	0	1	1	1	4	6	7	4	24
Leukemia	9	0	0	1	0	3	1	2	2	6	5	5	13	15	9	71
Primary Unknown	0	0	0	0	0	1	2	3	3	4	5	7	11	14	16	66
Other Primaries	0	0	0	0	0	0	1	1	1	0	2	1	4	1	5	16
TOTALS	21	9	5	21	21	62	106	105	181	199	197	241	321	298	387	2174
Non-Melanoma Skin Cancer	0	1	0	4	9	29	46	36	61	47	70	132	129	167	318	1049
Cervix: In Situ	0	20	106	94	68	61	33	16	4	4	1	3	2	0	0	412
Other: In Situ	0	2	0	2	1	8	10	21	18	17	18	23	24	32	53	229
TOTALS	0	23	106	100	78	98	89	73	83	68	89	158	155	199	371	1690

INCIDENCE – AGE-SPECIFIC RATES per 100,000 (MALE) – 1999

SITE	AGE GROUPS														
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0.0	0.0	0.0	0.0	2.9	0.0	2.4	0.0	3.5	4.5	10.2	0.0	23.6	57.9	54.5	5.2
Oral Cavity	0.0	0.0	0.0	0.0	0.0	0.0	2.4	5.7	3.5	13.5	5.1	31.9	11.8	14.5	30.3	4.4
Head and Neck	0.0	4.8	0.0	0.0	0.0	0.0	0.0	5.7	0.0	13.5	15.3	15.9	11.8	21.7	12.1	3.9
Esophagus	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	3.5	9.0	15.3	21.2	23.6	29.0	24.2	4.4
Stomach	0.0	0.0	0.0	0.0	2.9	2.4	0.0	2.8	14.0	18.0	25.5	53.1	82.6	72.4	96.9	12.7
Colon	0.0	0.0	0.0	2.	8.7	2.4	4.9	22.7	28.0	36.0	56.2	122.1	241.9	275.2	290.8	37.0
Rectum	0.0	0.0	0.0	0.0	2.9	2.4	4.9	14.2	17.5	36.0	46.0	69.0	129.8	123.1	151.5	20.8
Liver	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	10.6	5.9	14.5	6.1	1.4
Gall Bladder and Biliary Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	7.0	0.0	0.0	10.6	11.8	14.5	30.3	2.7
Pancreas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	22.5	30.6	26.5	41.3	57.9	66.6	8.7
Digestive Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	23.6	14.5	18.2	1.9
Larynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	7.0	22.5	25.5	15.9	35.4	14.5	24.2	5.4
Trachea, Bronchus, and Lung	0.0	0.0	0.0	0.0	2.9	0.0	9.7	19.9	45.5	117.1	255.4	313.2	342.2	391.1	351.4	63.6
Respiratory System	0.0	0.0	0.0	0.0	0.0	0.0	4.9	2.8	0.0	4.5	5.1	15.9	5.9	14.5	12.1	2.5
Bone and Connective Tissue	1.7	4.8	0.0	2.9	8.7	9.7	2.4	5.7	0.0	0.0	0.0	10.6	0.0	14.5	6.1	3.9
Malignant Melanoma of Skin	0.0	4.8	0.0	0.0	2.9	2.4	12.2	14.2	21.0	45.1	35.8	26.5	29.5	72.4	66.6	13.1
Breast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	4.5	0.0	5.3	0.0	7.2	12.1	1.2
Prostate	0.0	0.0	0.0	0.0	0.0	0.0	4.9	8.5	66.5	117.1	459.7	764.5	849.7	1274.7	823.9	142.7
Male Genital Organs	0.0	0.0	18.1	20.6	11.6	14.6	7.3	8.5	3.5	4.5	0.0	10.6	0.0	14.5	18.2	7.5
Kidney	0.0	0.0	0.0	0.0	0.0	4.9	2.4	2.8	0.0	36.0	40.9	84.9	64.9	79.7	30.3	12.2
Bladder	0.0	0.0	0.0	0.0	0.0	0.0	12.2	17.0	21.0	49.6	81.7	127.4	112.1	231.8	248.4	30.9
Other Urinary Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	3.5	4.5	5.1	0.0	0.0	0.0	12.1	1.4
Brain & Central Nervous System	3.5	4.8	0.0	0.0	14.4	7.3	4.9	5.7	3.5	22.5	20.4	31.9	17.7	29.0	18.2	8.5
Thyroid	0.0	0.0	0.0	0.0	0.0	9.7	2.4	0.0	14.0	9.0	5.1	5.3	11.8	7.2	6.1	3.3
Other Endocrine Glands	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lymphoma	1.7	2.4	0.0	2.9	5.8	2.4	21.9	22.7	21.0	31.5	35.8	63.7	82.6	108.6	78.8	18.9
Hodgkin's Disease	0.9	0.0	2.6	8.8	2.9	2.4	2.4	2.8	7.0	4.5	0.0	5.3	5.9	7.2	0.0	2.9
Multiple Myeloma	0.0	0.0	0.0	0.0	0.0	0.0	2.4	5.7	3.5	18.0	15.3	10.6	29.5	36.2	24.2	5.2
Leukemia	1.7	0.0	0.0	2.9	5.8	2.4	7.3	17.0	21.0	49.6	61.3	84.9	76.7	86.9	78.8	18.9
Primary Unknown	0.0	2.4	0.0	0.0	0.0	4.9	7.3	8.5	10.5	22.5	20.4	21.2	47.2	57.9	84.8	10.6
Other Primaries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	5.1	0.0	5.9	7.2	18.2	1.4
TOTAL – ALL SITES	457															

Statistical Tables

INCIDENCE – AGE-SPECIFIC RATES per 100,000 (FEMALE) – 1999

SITE	AGE GROUPS															
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	4.5	0.0	0.0	5.2	5.6	7.0	1.1
Oral Cavity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.6	9.0	0.0	10.1	5.2	5.6	7.0	1.9
Head and Neck	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	7.2	0.0	15.0	0.0	5.2	0.0	7.0	1.7
Esophagus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	5.0	5.2	0.0	21.1	1.9
Stomach	0.0	0.0	0.0	0.0	0.0	2.4	2.5	6.0	10.8	4.5	10.0	25.2	25.8	39.4	35.2	7.1
Colon	0.0	0.0	0.0	0.0	2.9	2.4	7.5	11.9	39.6	58.8	65.2	110.7	165.2	168.9	232.3	37.5
Rectum	0.0	0.0	0.0	0.0	0.0	2.4	5.0	14.9	28.8	27.1	30.1	70.5	56.8	95.7	49.3	16.1
Liver	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	10.3	5.6	3.5	1.3
Gall Bladder and Biliary Tract	0.0	0.0	0.0	0.0	0.0	2.4	2.5	0.0	3.6	0.0	15.0	5.0	5.2	5.6	17.6	2.7
Pancreas	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	7.2	22.6	10.0	10.1	51.6	22.5	52.8	7.8
Digestive Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	5.0	5.0	5.2	16.9	3.5	1.5
Larynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	5.0	10.1	5.2	0.0	3.5	1.1
Trachea, Bronchus, and Lung	0.0	0.0	0.0	0.0	2.9	0.0	10.0	8.9	50.4	131.1	130.4	216.4	278.8	292.8	102.1	40.8
Respiratory System	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	5.0	0.0	5.6	7.0	1.1
Bone and Connective Tissue	2.7	2.5	0.0	0.0	0.0	0.0	2.5	0.0	3.6	4.5	0.0	0.0	5.2	5.6	3.5	1.9
Malignant Melanoma of Skin	0.0	0.0	2.8	0.0	2.9	7.3	12.5	14.9	28.8	22.6	15.0	20.1	20.7	67.6	17.6	10.7
Breast	0.0	0.0	0.0	9.2	17.6	46.1	120.3	133.9	262.9	316.4	336.0	322.1	485.3	354.7	362.6	125.3
Cervix: Invasive	0.0	5.0	0.0	24.5	17.6	21.8	15.0	20.8	14.4	31.6	15.0	5.0	20.7	0.0	10.6	11.5
Uterus	0.0	0.0	0.0	0.0	5.9	2.4	10.0	14.9	54.0	76.9	70.2	75.5	67.1	95.7	52.8	22.6
Ovary	0.0	0.0	0.0	9.2	2.9	7.3	17.5	20.8	21.6	45.2	35.1	45.3	56.8	50.7	38.7	16.1
Female Genital Organs	0.0	2.5	0.0	3.1	0.0	4.9	5.0	3.0	0.0	4.5	0.0	0.0	20.7	16.9	17.6	4.4
Kidney	0.9	0.0	0.0	0.0	0.0	0.0	7.5	11.9	18.0	4.5	5.0	35.2	62.0	39.4	31.7	9.6
Bladder	0.0	0.0	0.0	0.0	0.0	0.0	2.5	3.0	10.8	27.1	75.2	60.4	31.0	61.9	56.3	12.6
Other Urinary Tract	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	10.3	11.3	7.0	1.3
Brain & Central Nervous System	3.6	5.0	0.0	0.0	0.0	12.1	10.0	3.0	3.6	9.0	25.1	20.1	0.0	16.9	3.5	6.1
Thyroid	0.0	2.5	2.8	12.2	2.9	17.0	17.5	11.9	10.8	13.6	15.0	5.0	10.3	0.0	7.0	7.5
Other Endocrine Glands	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Lymphoma	1.8	0.0	2.8	0.0	2.9	4.9	7.5	8.9	32.4	22.6	45.1	55.4	67.1	84.5	77.4	18.4
Hodgkin's Disease	0.0	2.5	5.5	3.1	2.9	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	1.6
Multiple Myeloma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	4.5	5.0	20.1	31.0	39.4	14.1	4.5
Leukemia	8.2	0.0	0.0	3.1	0.0	7.3	2.5	6.0	7.2	27.1	25.1	25.2	67.1	84.5	31.7	15.8
Primary Unknown	0.0	0.0	0.0	0.0	0.0	2.4	5.0	8.9	10.8	18.1	25.1	35.2	56.8	78.8	56.3	16.8
Other Primaries	0.0	0.0	0.0	0.0	0.0	0.0	2.5	3.0	3.6	0.0	10.0	5.0	20.7	5.6	17.6	3.1
TOTAL – ALL SITES	415.9															

INCIDENCE – AGE-SPECIFIC RATES per 100,000 (MALE) – 1999

SITE	AGE GROUPS														
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0.0	0.0	0.0	0.0	2.9	0.0	2.4	0.0	3.5	4.5	10.2	0.0	23.6	57.9	54.5	5.2
Oral Cavity	0.0	0.0	0.0	0.0	0.0	0.0	2.4	5.7	3.5	13.5	5.1	31.9	11.8	14.5	30.3	4.4
Head and Neck	0.0	4.8	0.0	0.0	0.0	0.0	0.0	5.7	0.0	13.5	15.3	15.9	11.8	21.7	12.1	3.9
Esophagus	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	3.5	9.0	15.3	21.2	23.6	29.0	24.2	4.4
Stomach	0.0	0.0	0.0	0.0	2.9	2.4	0.0	2.8	14.0	18.0	25.5	53.1	82.6	72.4	96.9	12.7
Colon	0.0	0.0	0.0	2.	8.7	2.4	4.9	22.7	28.0	36.0	56.2	122.1	241.9	275.2	290.8	37.0
Rectum	0.0	0.0	0.0	0.0	2.9	2.4	4.9	14.2	17.5	36.0	46.0	69.0	129.8	123.1	151.5	20.8
Liver	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	10.6	5.9	14.5	6.1	1.4
Gall Bladder and Biliary Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	7.0	0.0	0.0	10.6	11.8	14.5	30.3	2.7
Pancreas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	22.5	30.6	26.5	41.3	57.9	66.6	8.7
Digestive Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	23.6	14.5	18.2	1.9
Larynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	7.0	22.5	25.5	15.9	35.4	14.5	24.2	5.4
Trachea, Bronchus, and Lung	0.0	0.0	0.0	0.0	2.9	0.0	9.7	19.9	45.5	117.1	255.4	313.2	342.2	391.1	351.4	63.6
Respiratory System	0.0	0.0	0.0	0.0	0.0	0.0	4.9	2.8	0.0	4.5	5.1	15.9	5.9	14.5	12.1	2.5
Bone and Connective Tissue	1.7	4.8	0.0	2.9	8.7	9.7	2.4	5.7	0.0	0.0	0.0	10.6	0.0	14.5	6.1	3.9
Malignant Melanoma of Skin	0.0	4.8	0.0	0.0	2.9	2.4	12.2	14.2	21.0	45.1	35.8	26.5	29.5	72.4	66.6	13.1
Breast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	4.5	0.0	5.3	0.0	7.2	12.1	1.2
Prostate	0.0	0.0	0.0	0.0	0.0	0.0	4.9	8.5	66.5	117.1	459.7	764.5	849.7	1274.7	823.9	142.7
Male Genital Organs	0.0	0.0	18.1	20.6	11.6	14.6	7.3	8.5	3.5	4.5	0.0	10.6	0.0	14.5	18.2	7.5
Kidney	0.0	0.0	0.0	0.0	0.0	4.9	2.4	2.8	0.0	36.0	40.9	84.9	64.9	79.7	30.3	12.2
Bladder	0.0	0.0	0.0	0.0	0.0	0.0	12.2	17.0	21.0	49.6	81.7	127.4	112.1	231.8	248.4	30.9
Other Urinary Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	3.5	4.5	5.1	0.0	0.0	0.0	12.1	1.4
Brain & Central Nervous System	3.5	4.8	0.0	0.0	14.4	7.3	4.9	5.7	3.5	22.5	20.4	31.9	17.7	29.0	18.2	8.5
Thyroid	0.0	0.0	0.0	0.0	0.0	9.7	2.4	0.0	14.0	9.0	5.1	5.3	11.8	7.2	6.1	3.3
Other Endocrine Glands	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lymphoma	1.7	2.4	0.0	2.9	5.8	2.4	21.9	22.7	21.0	31.5	35.8	63.7	82.6	108.6	78.8	18.9
Hodgkin's Disease	0.9	0.0	2.6	8.8	2.9	2.4	2.4	2.8	7.0	4.5	0.0	5.3	5.9	7.2	0.0	2.9
Multiple Myeloma	0.0	0.0	0.0	0.0	0.0	0.0	2.4	5.7	3.5	18.0	15.3	10.6	29.5	36.2	24.2	5.2
Leukemia	1.7	0.0	0.0	2.9	5.8	2.4	7.3	17.0	21.0	49.6	61.3	84.9	76.7	86.9	78.8	18.9
Primary Unknown	0.0	2.4	0.0	0.0	0.0	4.9	7.3	8.5	10.5	22.5	20.4	21.2	47.2	57.9	84.8	10.6
Other Primaries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	5.1	0.0	5.9	7.2	18.2	1.4
TOTAL – ALL SITES	457.1															

INCIDENCE – AGE-SPECIFIC RATES per 100,000 (FEMALE) – 1999

SITE	AGE GROUPS															
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	4.5	0.0	0.0	5.2	5.6	7.0	1.1
Oral Cavity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.6	9.0	0.0	10.1	5.2	5.6	7.0	1.9
Head and Neck	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	7.2	0.0	15.0	0.0	5.2	0.0	7.0	1.7
Esophagus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	5.0	5.2	0.0	21.1	1.9
Stomach	0.0	0.0	0.0	0.0	0.0	2.4	2.5	6.0	10.8	4.5	10.0	25.2	25.8	39.4	35.2	7.1
Colon	0.0	0.0	0.0	0.0	2.9	2.4	7.5	11.9	39.6	58.8	65.2	110.7	165.2	168.9	232.3	37.5
Rectum	0.0	0.0	0.0	0.0	0.0	2.4	5.0	14.9	28.8	27.1	30.1	70.5	56.8	95.7	49.3	16.1
Liver	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	10.3	5.6	3.5	1.3
Gall Bladder and Biliary Tract	0.0	0.0	0.0	0.0	0.0	2.4	2.5	0.0	3.6	0.0	15.0	5.0	5.2	5.6	17.6	2.7
Pancreas	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	7.2	22.6	10.0	10.1	51.6	22.5	52.8	7.8
Digestive Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	5.0	5.0	5.2	16.9	3.5	1.5
Larynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	5.0	10.1	5.2	0.0	3.5	1.1
Trachea, Bronchus, and Lung	0.0	0.0	0.0	0.0	2.9	0.0	10.0	8.9	50.4	131.1	130.4	216.4	278.8	292.8	102.1	48.8
Respiratory System	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	5.0	0.0	5.6	7.0	1.1
Bone and Connective Tissue	2.7	2.5	0.0	0.0	0.0	0.0	2.5	0.0	3.6	4.5	0.0	0.0	5.2	5.6	3.5	1.9
Malignant Melanoma of Skin	0.0	0.0	2.8	0.0	2.9	7.3	12.5	14.9	28.8	22.6	15.0	20.1	20.7	67.6	17.6	10.7
Breast	0.0	0.0	0.0	9.2	17.6	46.1	120.3	133.9	262.9	316.4	336.0	322.1	485.3	354.7	362.6	125.3
Cervix: Invasive	0.0	5.0	0.0	24.5	17.6	21.8	15.0	20.8	14.4	31.6	15.0	5.0	20.7	0.0	10.6	11.5
Uterus	0.0	0.0	0.0	0.0	5.9	2.4	10.0	14.9	54.0	76.9	70.2	75.5	67.1	95.7	52.8	22.6
Ovary	0.0	0.0	0.0	9.2	2.9	7.3	17.5	20.8	21.6	45.2	35.1	45.3	56.8	50.7	38.7	16.1
Female Genital Organs	0.0	2.5	0.0	3.1	0.0	4.9	5.0	3.0	0.0	4.5	0.0	0.0	20.7	16.9	17.6	3.8
Kidney	0.9	0.0	0.0	0.0	0.0	0.0	7.5	11.9	18.0	4.5	5.0	35.2	62.0	39.4	31.7	9.6
Bladder	0.0	0.0	0.0	0.0	0.0	0.0	2.5	3.0	10.8	27.1	75.2	60.4	31.0	61.9	56.3	13.6
Other Urinary Tract	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	10.3	11.3	7.0	1.3
Brain & Central Nervous System	3.6	5.0	0.0	0.0	0.0	12.1	10.0	3.0	3.6	9.0	25.1	20.1	0.0	16.9	3.5	6.1
Thyroid	0.0	2.5	2.8	12.2	2.9	17.0	17.5	11.9	10.8	13.6	15.0	5.0	10.3	0.0	7.0	7.5
Other Endocrine Glands	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Lymphoma	1.8	0.0	2.8	0.0	2.9	4.9	7.5	8.9	32.4	22.6	45.1	55.4	67.1	84.5	77.4	18.4
Hodgkin's Disease	0.0	2.5	5.5	3.1	2.9	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	1.5
Multiple Myeloma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	4.5	5.0	20.1	31.0	39.4	14.1	4.6
Leukemia	8.2	0.0	0.0	3.1	0.0	7.3	2.5	6.0	7.2	27.1	25.1	25.2	67.1	84.5	31.7	13.6
Primary Unknown	0.0	0.0	0.0	0.0	0.0	2.4	5.0	8.9	10.8	18.1	25.1	35.2	56.8	78.8	56.3	12.6
Other Primaries	0.0	0.0	0.0	0.0	0.0	0.0	2.5	3.0	3.6	0.0	10.0	5.0	20.7	5.6	17.6	3.1
TOTAL – ALL SITES	415.9															

MORTALITY – AGE-SPECIFIC NUMBERS (MALE) – 1999

SITE	AGE GROUPS														
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oral Cavity	0	0	0	0	0	0	1	0	0	1	0	1	0	1	1	5
Head and Neck	0	0	0	0	0	0	0	0	0	0	1	3	2	1	2	9
Esophagus	0	0	0	0	0	1	0	3	1	4	6	7	3	6	6	37
Stomach	0	0	0	0	1	1	0	2	4	0	6	3	8	3	10	38
Colon	0	0	0	0	0	0	1	6	4	4	9	7	14	18	34	97
Rectum	0	0	0	0	0	0	1	1	2	2	2	5	6	10	11	40
Liver	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
Gall Bladder and Biliary Tract	0	0	0	0	0	0	0	0	0	2	1	0	5	3	2	13
Pancreas	0	0	0	0	0	0	1	0	1	5	7	4	8	10	19	55
Digestive Tract	0	0	0	0	0	0	0	1	0	2	1	4	5	3	5	21
Larynx	0	0	0	0	0	0	0	0	0	0	2	2	1	3	2	10
Trachea, Bronchus, and Lung	1	0	0	0	1	1	1	3	12	25	38	61	59	67	85	354
Respiratory System	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Bone and Connective Tissue	0	2	0	0	0	0	1	1	0	0	0	0	1	1	1	7
Malignant Melanoma of Skin	0	0	0	0	0	0	0	1	0	1	2	1	1	3	2	11
Breast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prostate	0	0	0	0	0	0	0	0	1	3	9	18	29	58	114	232
Male Genital Organs	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2
Kidney	0	0	0	0	0	0	1	2	2	3	4	2	2	5	6	27
Bladder	0	0	0	0	0	0	2	0	0	0	6	2	4	11	20	45
Other Urinary Tract	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
Brain & Central Nervous System	1	1	0	1	0	1	2	4	0	2	2	3	4	4	3	28
Thyroid	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2
Other Endocrine Glands	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lymphoma	0	0	0	0	0	1	2	3	3	2	4	1	6	7	12	41
Hodgkin's Disease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multiple Myeloma	0	0	0	0	0	0	0	0	1	3	1	4	4	2	5	20
Leukemia	0	0	0	0	2	0	1	1	2	4	3	8	5	3	14	43
Primary Unknown	0	0	0	0	1	0	0	4	3	5	2	8	13	13	17	66
Other Primaries	0	0	0	0	0	0	0	0	1	0	0	0	2	2	0	5
TOTALS	3	3	0	1	5	6	16	32	37	69	107	146	182	236	371	1214
Non-Melanoma Skin Cancer	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4	5
Other: In Situ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Death Certificates	0	0	0	0	0	0	0	0	2	1	3	8	11	17	52	94
TOTALS	0	0	0	0	0	0	0	0	3	1	3	8	11	17	56	99

Statistical Tables

MORTALITY – AGE-SPECIFIC NUMBERS (FEMALE) – 1999

SITE	AGE GROUPS															
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oral Cavity	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	5
Head and Neck	0	0	0	0	0	0	0	1	1	0	0	0	1	1	1	5
Esophagus	0	0	0	0	0	0	1	0	1	1	1	2	0	0	10	16
Stomach	0	0	0	0	0	1	1	0	3	0	2	3	7	5	8	30
Colon	0	0	0	0	0	1	0	1	3	4	4	12	11	6	34	76
Rectum	0	0	0	0	0	0	0	0	0	0	0	0	3	3	11	17
Liver	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	4
Gall Bladder and Biliary Tract	0	0	0	0	0	0	0	0	0	0	2	1	4	2	8	17
Pancreas	0	0	0	0	0	1	0	0	3	4	2	5	8	7	27	57
Digestive Tract	0	0	0	0	0	0	0	0	1	1	1	0	3	2	7	15
Larynx	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2
Trachea, Bronchus, and Lung	0	0	0	0	1	3	2	4	9	18	25	35	42	42	47	228
Respiratory System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bone and Connective Tissue	0	2	1	0	0	0	0	0	0	0	1	3	3	3	2	15
Malignant Melanoma of Skin	0	0	0	1	0	0	2	0	0	0	0	0	1	1	1	6
Breast	0	0	0	0	3	5	8	4	16	6	8	18	15	15	46	144
Cervix: Invasive	0	0	0	2	1	1	0	2	0	4	1	1	2	3	5	22
Uterus	0	0	0	0	0	1	0	1	0	0	2	3	3	5	8	23
Ovary	0	0	0	0	1	1	0	2	4	2	2	7	6	10	9	44
Female Genital Organs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
Kidney	0	0	0	0	0	0	1	1	0	2	2	0	4	2	7	19
Bladder	0	0	0	0	0	0	1	1	0	0	2	1	1	2	5	13
Other Urinary Tract	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brain & Central Nervous System	0	1	0	0	0	0	1	1	2	3	2	6	2	1	2	21
Thyroid	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3
Other Endocrine Glands	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lymphoma	0	0	0	1	0	1	1	1	1	1	3	3	7	6	19	44
Hodgkin's Disease	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Multiple Myeloma	0	0	0	0	0	0	0	0	1	1	0	3	1	2	7	15
Leukemia	3	0	0	0	0	0	0	1	1	0	0	1	7	5	7	25
Primary Unknown	0	0	1	2	0	0	1	2	1	6	1	10	7	9	25	65
Other Primaries	0	0	0	0	0	0	0	1	0	1	0	0	2	2	5	11
TOTALS	3	3	2	7	6	15	19	23	57	56	62	116	141	135	310	948
Non-Melanoma Skin Cancer	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	5
Cervix: In Situ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other: In Situ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Death Certificates	0	0	0	0	0	0	0	0	1	1	2	6	2	10	51	73
TOTALS	0	0	0	0	0	0	0	0	1	1	2	7	2	12	53	78

MORTALITY – AGE-SPECIFIC NUMBERS (MALE) – 1999

SITE	AGE GROUPS															
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oral Cavity	0	0	0	0	0	0	1	0	0	1	0	1	0	1	1	5
Head and Neck	0	0	0	0	0	0	0	0	0	0	1	3	2	1	2	9
Esophagus	0	0	0	0	0	1	0	3	1	4	6	7	3	6	6	37
Stomach	0	0	0	0	1	1	0	2	4	0	6	3	8	3	10	38
Colon	0	0	0	0	0	0	1	6	4	4	9	7	14	18	34	97
Rectum	0	0	0	0	0	0	1	1	2	2	2	5	6	10	11	40
Liver	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
Gall Bladder and Biliary Tract	0	0	0	0	0	0	0	0	0	2	1	0	5	3	2	13
Pancreas	0	0	0	0	0	0	1	0	1	5	7	4	8	10	19	55
Digestive Tract	0	0	0	0	0	0	0	1	0	2	1	4	5	3	5	21
Larynx	0	0	0	0	0	0	0	0	0	0	2	2	1	3	2	10
Trachea Bronchus and Lung	1	0	0	0	1	1	1	3	12	25	38	61	59	67	85	354
Respiratory System	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Bone and Connective Tissue	0	2	0	0	0	0	1	1	0	0	0	0	1	1	1	7
Malignant Melanoma of Skin	0	0	0	0	0	0	0	1	0	1	2	1	1	3	2	11
Breast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prostate	0	0	0	0	0	0	0	0	1	3	9	18	29	58	114	232
Male Genital Organs	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2
Kidney	0	0	0	0	0	0	1	2	2	3	4	2	2	5	6	27
Bladder	0	0	0	0	0	0	2	0	0	0	6	2	4	11	20	45
Other Urinary Tract	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
Brain & Central Nervous System	1	1	0	1	0	1	2	4	0	2	2	3	4	4	3	28
Thyroid	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2
Other Endocrine Glands	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lymphoma	0	0	0	0	0	1	2	3	3	2	4	1	6	7	12	41
Hodgkin's Disease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multiple Myeloma	0	0	0	0	0	0	0	0	1	3	1	4	4	2	5	20
Leukemia	0	0	0	0	2	0	1	1	2	4	3	8	5	3	14	43
Primary Unknown	0	0	0	0	1	0	0	4	3	5	2	8	13	13	17	66
Other Primaries	0	0	0	0	0	0	0	0	1	0	0	0	2	2	0	5
TOTALS	3	3	0	1	5	6	16	32	37	69	107	146	182	236	371	1214
Non-Melanoma Skin Cancer	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4	5
Other: In Situ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Death Certificates	0	0	0	0	0	0	0	0	2	1	3	8	11	17	52	94
TOTALS	0	0	0	0	0	0	0	0	3	1	3	8	11	17	56	99

MORTALITY – AGE-SPECIFIC NUMBERS (FEMALE) – 1999

SITE	AGE GROUPS															
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oral Cavity	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	5
Head and Neck	0	0	0	0	0	0	0	1	1	0	0	0	1	1	1	5
Esophagus	0	0	0	0	0	0	1	0	1	1	1	2	0	0	10	16
Stomach	0	0	0	0	0	1	1	0	3	0	2	3	7	5	8	30
Colon	0	0	0	0	0	1	0	1	3	4	4	12	11	6	34	76
Rectum	0	0	0	0	0	0	0	0	0	0	0	0	3	3	11	17
Liver	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	4
Gall Bladder and Biliary Tract	0	0	0	0	0	0	0	0	0	0	2	1	4	2	8	17
Pancreas	0	0	0	0	0	1	0	0	3	4	2	5	8	7	27	57
Digestive Tract	0	0	0	0	0	0	0	0	1	1	1	0	3	2	7	15
Larynx	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2
Trachea, Bronchus, and Lung	0	0	0	0	1	3	2	4	9	18	25	35	42	42	47	228
Respiratory System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bone and Connective Tissue	0	2	1	0	0	0	0	0	0	0	1	3	3	3	2	15
Malignant Melanoma of Skin	0	0	0	1	0	0	2	0	0	0	0	0	1	1	1	6
Breast	0	0	0	0	3	5	8	4	16	6	8	18	15	15	46	144
Cervix: Invasive	0	0	0	2	1	1	0	2	0	4	1	1	2	3	5	22
Uterus	0	0	0	0	0	1	0	1	0	0	2	3	3	5	8	23
Ovary	0	0	0	0	1	1	0	2	4	2	2	7	6	10	9	44
Female Genital Organs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
Kidney	0	0	0	0	0	0	1	1	0	2	2	0	4	2	7	19
Bladder	0	0	0	0	0	0	1	1	0	0	2	1	1	2	5	13
Other Urinary Tract	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brain & Central Nervous System	0	1	0	0	0	0	1	1	2	3	2	6	2	1	2	21
Thyroid	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3
Other Endocrine Glands	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lymphoma	0	0	0	1	0	1	1	1	1	1	3	3	7	6	19	44
Hodgkin's Disease	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Multiple Myeloma	0	0	0	0	0	0	0	0	1	1	0	3	1	2	7	15
Leukemia	3	0	0	0	0	0	0	1	1	0	0	1	7	5	7	25
Primary Unknown	0	0	1	2	0	0	1	2	1	6	1	10	7	9	25	65
Other Primaries	0	0	0	0	0	0	0	1	0	1	0	0	2	2	5	11
TOTALS	3	3	2	7	6	15	19	23	47	56	62	116	144	135	310	948
Non-Melanoma Skin Cancer	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	5
Cervix: In Situ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other: In Situ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Death Certificates	0	0	0	0	0	0	0	0	1	1	2	6	2	10	51	73
TOTALS	0	0	0	0	0	0	0	0	1	1	2	7	2	12	53	78

MORTALITY – AGE-SPECIFIC RATES per 100,000 (MALE) – 1999

SITE	AGE GROUPS															
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oral Cavity	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	4.5	0.0	5.3	0.0	7.2	6.1	1.0
Head and Neck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	15.9	11.8	7.2	12.1	1.7
Esophagus	0.0	0.0	0.0	0.0	0.0	2.4	0.0	8.5	3.5	18.0	30.6	37.2	17.7	43.5	36.4	7.1
Stomach	0.0	0.0	0.0	0.0	2.9	2.4	0.0	5.7	14.0	0.0	30.6	15.9	47.2	21.7	60.6	7.3
Colon	0.0	0.0	0.0	0.0	0.0	0.0	2.4	17.0	14.0	18.0	46.0	37.2	82.6	130.4	206.0	18.7
Rectum	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.8	7.0	9.0	10.2	26.5	35.4	72.4	66.6	7.7
Liver	0.0	0.0	0.0	0.0	0.0	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Gall Bladder and Biliary Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	5.1	0.0	29.5	21.7	12.1	2.5
Pancreas	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	3.5	22.5	35.8	21.2	47.2	72.4	115.1	10.6
Digestive Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	9.0	5.1	21.2	29.5	21.7	30.3	4.1
Larynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2	10.6	5.9	21.7	12.1	1.9
Trachea, Bronchus, and Lung	0.9	0.0	0.0	0.0	2.9	2.4	2.4	8.5	42.0	112.6	194.1	323.8	348.1	485.3	515.0	68.3
Respiratory System	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0	0.2
Bone and Connective Tissue	0.0	4.8	0.0	0.0	0.0	0.0	2.4	2.8	0.0	0.0	0.0	0.0	5.9	7.2	6.1	1.4
Malignant Melanoma of Skin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	4.5	10.2	5.	5.9	21.7	12.1	2.1
Breast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prostate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	13.5	46.0	95.6	171.1	420.1	690.7	44.7
Male Genital Organs	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.4
Kidney	0.0	0.0	0.0	0.0	0.0	0.0	2.4	5.7	7.0	13.5	20.4	10.6	11.8	36.2	36.4	5.2
Bladder	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	30.6	10.6	23.6	79.7	121.2	8.7
Other Urinary Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	5.3	0.0	0.0	0.0	0.4
Brain & Central Nervous System	0.9	2.4	0.0	2.9	0.0	2.4	4.9	11.4	0.0	9.0	10.2	15.9	23.6	29.0	18.2	5.4
Thyroid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	7.2	0.0	0.4
Other Endocrine Glands	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Lymphoma	0.0	0.0	0.0	0.0	0.0	2.4	4.9	8.5	10.5	9.0	20.4	5.3	35.4	50.7	72.7	7.9
Hodgkin's Disease	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Multiple Myeloma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	13.5	5.1	21.2	23.6	14.5	30.3	2.9
Leukemia	0.0	0.0	0.0	0.0	5.8	0.0	2.4	2.8	7.0	18.0	15.3	42.5	29.5	21.7	84.8	8.3
Primary Unknown	0.0	0.0	0.0	0.0	2.9	0.0	0.0	11.4	10.5	22.5	10.2	42.5	76.7	94.2	103.0	12.7
Other Primaries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	11.8	14.5	0.0	1.0
TOTAL – ALL SITES	234 1															

MORTALITY – AGE-SPECIFIC RATES per 100,000 (FEMALE) – 1999

SITE	AGE GROUPS															
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Oral Cavity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0	10.3	0.0	3.5	
Head and Neck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.6	0.0	0.0	0.0	5.2	5.6	3.5	
Esophagus	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	3.6	4.5	5.0	10.1	0.0	0.0	35.2	
Stomach	0.0	0.0	0.0	0.0	0.0	2.4	2.5	0.0	10.8	0.0	10.0	15.1	36.1	28.2	28.2	
Colon	0.0	0.0	0.0	0.0	0.0	2.4	0.0	3.0	10.8	18.1	20.1	60.4	56.8	33.8	119.7	
Rectum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.5	16.9	38.7	
Liver	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.2	5.6	3.5	
Gall Bladder and Biliary Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	5.0	20.7	11.3	28.2	
Pancreas	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	10.8	18.1	10.0	25.2	41.3	39.4	95.0	
Digestive Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	4.5	5.0	0.0	15.5	11.3	24.6	
Larynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	0.0	0.0	0.0	
Trachea, Bronchus, and Lung	0.0	0.0	0.0	0.0	2.9	7.3	5.0	11.9	32.4	81.4	125.4	176.1	216.9	236.5	165.4	
Respiratory System	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Bone and Connective Tissue	0.0	5.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	15.1	15.5	16.9	7.0	
Malignant Melanoma of Skin	0.0	0.0	0.0	3.1	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.2	5.6	3.5	
Breast	0.0	0.0	0.0	0.0	8.8	12.1	20.0	11.9	57.6	27.1	40.1	90.6	77.4	84.5	161.9	
Cervix: Invasive	0.0	0.0	0.0	6.1	2.9	2.4	0.0	6.0	0.0	18.1	5.0	5.0	10.3	16.9	17.6	
Uterus	0.0	0.0	0.0	0.0	0.0	2.4	0.0	3.0	0.0	0.0	10.0	15.1	15.5	28.2	28.2	
Ovary	0.0	0.0	0.0	0.0	2.9	2.4	0.0	6.0	14.4	9.0	10.0	35.2	31.0	56.3	31.7	
Female Genital Organs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.6	
Kidney	0.0	0.0	0.0	0.0	0.0	0.0	2.5	3.0	0.0	9.0	10.0	0.0	20.7	11.3	24.6	
Bladder	0.0	0.0	0.0	0.0	0.0	0.0	2.5	3.0	0.0	0.0	10.0	5.0	5.2	11.3	17.6	
Other Urinary Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Brain & Central Nervous System	0.0	2.5	0.0	0.0	0.0	0.0	2.5	3.0	7.2	13.6	10.0	30.2	10.3	5.6	7.0	
Thyroid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	7.0	
Other Endocrine Glands	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lymphoma	0.0	0.0	0.0	3.1	0.0	2.4	2.5	3.0	3.6	4.5	15.0	15.1	36.1	33.8	66.9	
Hodgkin's Disease	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Multiple Myeloma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	4.5	0.0	15.1	5.2	11.3	24.6	
Leukemia	2.7	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.6	0.0	0.0	5.0	36.1	28.2	24.6	
Primary Unknown	0.0	0.0	2.8	6.1	0.0	0.0	2.5	6.0	3.6	27.1	5.0	50.3	36.1	50.7	88.0	
Other Primaries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	4.5	0.0	0.0	10.3	11.3	17.6	
TOTAL – ALL SITES	181															

MORTALITY – AGE-SPECIFIC RATES per 100,000 (MALE) – 1999

SITE	AGE GROUPS															
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oral Cavity	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	4.5	0.0	5.3	0.0	7.2	6.1	1.0
Head and Neck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	15.9	11.8	7.2	12.1	1.7
Esophagus	0.0	0.0	0.0	0.0	0.0	2.4	0.0	8.5	3.5	18.0	30.6	37.2	17.7	43.5	36.4	7.1
Stomach	0.0	0.0	0.0	0.0	2.9	2.4	0.0	5.7	14.0	0.0	30.6	15.9	47.2	21.7	60.6	7.3
Colon	0.0	0.0	0.0	0.0	0.0	0.0	2.4	17.0	14.0	18.0	46.0	37.2	82.6	130.4	206.0	18.7
Rectum	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.8	7.0	9.0	10.2	26.5	35.4	72.4	66.6	7.7
Liver	0.0	0.0	0.0	0.0	0.0	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Gall Bladder and Biliary Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	5.1	0.0	29.5	21.7	12.1	2.5
Pancreas	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	3.5	22.5	35.8	21.2	47.2	72.4	115.1	10.6
Digestive Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	9.0	5.1	21.2	29.5	21.7	30.3	4.1
Larynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2	10.6	5.9	21.7	12.1	1.9
Trachea, Bronchus, and Lung	0.9	0.0	0.0	0.0	2.9	2.4	2.4	8.5	42.0	112.6	194.1	323.8	348.1	485.3	515.0	68.3
Respiratory System	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0	0.2
Bone and Connective Tissue	0.0	4.8	0.0	0.0	0.0	0.0	2.4	2.8	0.0	0.0	0.0	0.0	5.9	7.2	6.1	1.4
Malignant Melanoma of Skin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	4.5	10.2	5.	5.9	21.7	12.1	2.1
Breast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prostate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	13.5	46.0	95.6	171.1	420.1	690.7	44.7
Male Genital Organs	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.4
Kidney	0.0	0.0	0.0	0.0	0.0	0.0	2.4	5.7	7.0	13.5	20.4	10.6	11.8	36.2	36.4	5.2
Bladder	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	30.6	10.6	23.6	79.7	121.2	8.7
Other Urinary Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	5.3	0.0	0.0	0.0	0.4
Brain & Central Nervous System	0.9	2.4	0.0	2.9	0.0	2.4	4.9	11.4	0.0	9.0	10.2	15.9	23.6	29.0	18.2	5.4
Thyroid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	7.2	0.0	0.4
Other Endocrine Glands	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Lymphoma	0.0	0.0	0.0	0.0	0.0	2.4	4.9	8.5	10.5	9.0	20.4	5.3	35.4	50.7	72.7	7.9
Hodgkin's Disease	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Multiple Myeloma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	13.5	5.1	21.2	23.6	14.5	30.3	3.9
Leukemia	0.0	0.0	0.0	0.0	5.8	0.0	2.4	2.8	7.0	18.0	15.3	42.5	29.5	21.7	84.8	8.3
Primary Unknown	0.0	0.0	0.0	0.0	2.9	0.0	0.0	11.4	10.5	22.5	10.2	42.5	76.7	94.2	103.0	12.7
Other Primaries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	11.8	14.5	0.0	1.0
TOTAL – ALL SITES	234.1															

MORTALITY – AGE-SPECIFIC RATES per 100,000 (FEMALE) – 1999

SITE	AGE GROUPS															
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All Ages
Lip	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oral Cavity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0	10.3	0.0	3.5	1.0
Head and Neck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.6	0.0	0.0	0.0	5.2	5.6	3.5	1.0
Esophagus	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	3.6	4.5	5.0	10.1	0.0	0.0	35.2	3.1
Stomach	0.0	0.0	0.0	0.0	0.0	2.4	2.5	0.0	10.8	0.0	10.0	15.1	36.1	28.2	28.2	5.7
Colon	0.0	0.0	0.0	0.0	0.0	2.4	0.0	3.0	10.8	18.1	20.1	60.4	56.8	33.8	119.7	14.5
Rectum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.5	16.9	38.7	3.3
Liver	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.2	5.6	3.5	0.8
Gall Bladder and Biliary Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	5.0	20.7	11.3	28.2	3.3
Pancreas	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	10.8	18.1	10.0	25.2	41.3	39.4	95.0	10.9
Digestive Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	4.5	5.0	0.0	15.5	11.3	24.6	2.9
Larynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	0.0	0.0	0.0	0.4
Trachea, Bronchus, and Lung	0.0	0.0	0.0	0.0	2.9	7.3	5.0	11.9	32.4	81.4	125.4	176.1	216.9	236.5	165.4	43.6
Respiratory System	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bone and Connective Tissue	0.0	5.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	15.1	15.5	16.9	7.0	2.9
Malignant Melanoma of Skin	0.0	0.0	0.0	3.1	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.2	5.6	3.5	1.1
Breast	0.0	0.0	0.0	0.0	8.8	12.1	20.0	11.9	57.6	27.1	40.1	90.6	77.4	84.5	161.9	27.5
Cervix: Invasive	0.0	0.0	0.0	6.1	2.9	2.4	0.0	6.0	0.0	18.1	5.0	5.0	10.3	16.9	17.6	4.2
Uterus	0.0	0.0	0.0	0.0	0.0	2.4	0.0	3.0	0.0	0.0	10.0	15.1	15.5	28.2	28.2	4.4
Ovary	0.0	0.0	0.0	0.0	2.9	2.4	0.0	6.0	14.4	9.0	10.0	35.2	31.0	56.3	31.7	8.4
Female Genital Organs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.6	1.0
Kidney	0.0	0.0	0.0	0.0	0.0	0.0	2.5	3.0	0.0	9.0	10.0	0.0	20.7	11.3	24.6	3.6
Bladder	0.0	0.0	0.0	0.0	0.0	0.0	2.5	3.0	0.0	0.0	10.0	5.0	5.2	11.3	17.6	2.5
Other Urinary Tract	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brain & Central Nervous System	0.0	2.5	0.0	0.0	0.0	0.0	2.5	3.0	7.2	13.6	10.0	30.2	10.3	5.6	7.0	4.0
Thyroid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	7.0	0.6
Other Endocrine Glands	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lymphoma	0.0	0.0	0.0	3.1	0.0	2.4	2.5	3.0	3.6	4.5	15.0	15.1	36.1	33.8	66.9	8.4
Hodgkin's Disease	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Multiple Myeloma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	4.5	0.0	15.1	5.2	11.3	24.6	2.9
Leukemia	2.7	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.6	0.0	0.0	5.0	36.1	28.2	24.6	4.8
Primary Unknown	0.0	0.0	2.8	6.1	0.0	0.0	2.5	6.0	3.6	27.1	5.0	50.3	36.1	50.7	88.0	12.4
Other Primaries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	4.5	0.0	0.0	10.3	11.3	17.6	2.1
TOTAL – ALL SITES	181.3															

Provincial Incidence 1970 - 1999

Provincial Incidence 1970 - 1999

Non-Melanoma Skin and In-Situ Cases Excluded

Statistical Tables

PEDIATRIC INCIDENCE – 1999 – Both Clinics

SITE		AGE GROUPS					
		<1	1-4	5-9	10-14	15-16	Total
Bone	M	0	0	0	0	0	0
	F	0	0	1	0	0	1
Soft Tissue	M	1	0	0	1	1	3
	F	0	1	1	0	0	2
Kidney	M	0	0	0	0	0	0
	F	0	1	0	0	0	1
Genital Organs	M	0	0	0	0	0	0
	F	0	0	0	0	1	1
Retinoblastoma	M	0	0	0	0	0	0
	F	0	0	0	0	0	0
Brain, CNS	M	0	0	3	1	2	6
	F	1	0	2	1	0	4
Lymphoma	M	0	0	2	1	1	4
	F	0	1	0	1	0	2
Leukemia	M	0	2	0	0	0	2
	F	0	5	2	2	0	9
Other	M	0	0	0	0	0	0
	F	1	0	0	1	1	3
TOTALS	M	1	2	5	3	4	15
	F	2	8	6	5	2	23

Public Information Available

- Annual Report
- Saskatchewan Cancer Agency Brochures
- List of Payees

PEDIATRIC INCIDENCE – 1999 – Both Clinics

SITE		AGE GROUPS					
		< 1	1-4	5-9	10-14	15-16	Total
Bone	M	0	0	0	0	0	0
	F	0	0	1	0	0	1
Soft Tissue	M	1	0	0	1	1	3
	F	0	1	1	0	0	2
Kidney	M	0	0	0	0	0	0
	F	0	1	0	0	0	1
Genital Organs	M	0	0	0	0	0	0
	F	0	0	0	0	1	1
Retinoblastoma	M	0	0	0	0	0	0
	F	0	0	0	0	0	0
Brain, CNS	M	0	0	3	1	2	6
	F	1	0	2	1	0	4
Lymphoma	M	0	0	2	1	1	4
	F	0	1	0	1	0	2
Leukemia	M	0	2	0	0	0	2
	F	0	5	2	2	0	9
Other	M	0	0	0	0	0	0
	F	1	0	0	1	1	3
TOTALS	M	1	2	5	3	4	15
	F	2	8	6	5	2	23

Public Information Available

- Annual Report
- Saskatchewan Cancer Agency Brochures
- List of Payees

Report of Management

Management is responsible for the integrity of the financial data reported by the Foundation. Fulfilling this responsibility requires the preparation and presentation of financial statements, in accordance with generally accepted accounting principles in Canada which are consistently applied, with any exceptions specifically described in the financial statements.

Management uses internal accounting controls, offers direction through Foundation-wide policies and procedures and exercises its best judgement in order that the statements reflect fairly the financial position, results of operations and changes in financial position.

In order to gather and control financial data, the Foundation has established accounting and reporting systems supported by internal controls. In establishing systems of internal control, management weighs the cost of such systems against the benefits that it believes can be obtained. Management believes that the existing internal controls provide reasonable assurance that assets are safe-guarded and that the financial records are reliable for preparing financial statements and other data and maintaining accountability for assets.

The Provincial Auditor has examined the Saskatchewan Cancer Foundation's balance sheet as at March 31, 2000 and the statements of revenue and expenditure, fund balance and changes in financial position for the year then ended. Their responsibility is to express an opinion on the fairness of management's financial statements. The Auditor's Report outlines the scope of their audit and their opinion.

On behalf of Management.

Robert D. Allen
Chief Executive Officer

Kevin A. Lacey, CA
Executive Director, Finance

Financial Statements

Auditor's Report

To the Members of the Legislative Assembly of Saskatchewan

I have audited the statement of financial position of the Saskatchewan Cancer Foundation as at March 31, 2000 and the statements of operations and changes in fund balances, and cash flows for the year then ended. The Foundation's management is responsible for preparing these financial statements for Treasury Board's approval. My responsibility is to express an opinion on these financial statements based on my audit.

I conducted my audit in accordance with generally accepted auditing standards. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In my opinion, these financial statements present fairly, in all material respects, the financial position of the Foundation as at March 31, 2000 and the results of its operations and its cash flows for the year then ended in accordance with generally accepted accounting principles.

Regina, Saskatchewan
May 16, 2000

G.F. Wendel, CMA, CA
Acting Provincial Auditor

Statement 1

SASKATCHEWAN CANCER FOUNDATION
STATEMENT OF FINANCIAL POSITION
AS AT MARCH 31

	2000						1999
	Operating Funds		Restricted Funds				
	Operating Fund	Division of Prevention & Early Detection	Capital Fund	Research Fund	Trust Fund	Total	Total (Note 12)
ASSETS							
Current assets:							
Cash and short-term investments (Schedule 2)	$ 803,947	$ 153,353	$ 3,947,417	$ 234,292	$ 344,613	$ 5,483,622	$ 4,157,005
Accounts receivable:							
- Other and accrued interest	351,137	48,385	70,810	—	27,802	498,134	598,741
Prepaid expenses	82,784	—	—	8,255	—	91,039	129,691
Due (to) from other funds	(188,298)	(35,457)	386,327	(74,746)	(87,826)	—	—
	1,049,570	166,281	4,404,554	167,801	284,589	6,072,795	4,885,437
Investments (Schedule 2)							
(Market $11,375,341; 1999 - $9,824,039)	8,144,330	1,979,980	489,650	—	1,024,500	11,638,460	9,618,610
Capital assets (Note 3)	—	—	20,530,747	—	—	20,530,747	22,221,620
	$ 9,193,900	$ 2,146,261	$25,424,951	$ 167,801	$ 1,309,089	$38,242,002	$36,725,667
LIABILITIES AND FUND BALANCES							
Current Liabilities:							
Accounts payable:							
- Trade	$ 2,211,861	$ 148,508	$ 128,898	$ 17,918	$ 656	$ 2,507,841	$ 2,573,420
- Vacation	447,626	5,362	—	—	—	452,988	375,565
Deferred revenue	839,936	—	—	—	—	839,936	819,615
	3,499,423	153,870	128,898	17,918	656	3,800,765	3,768,600
Fund Balances:							
Invested in capital assets	—	—	20,530,747	—	—	20,530,747	22,221,620
Other capital fund net assets	—	—	4,765,306	—	—	4,765,306	1,546,435
Externally restricted, statement 2	—	—	—	149,883	1,308,433	1,458,316	1,358,904
Unrestricted, statement 2	5,694,477	1,992,391	—	—	—	7,686,868	7,830,108
	5,694,477	1,992,391	25,296,053	149,883	1,308,433	34,441,237	32,957,067
	$ 9,193,900	$ 2,146,261	$25,424,951	$ 167,801	$ 1,309,089	$38,242,002	$36,725,667

(see accompanying notes to the financial statements)

SASKATCHEWAN CANCER FOUNDATION
STATEMENT OF OPERATIONS AND CHANGES IN FUND BALANCES
YEAR ENDED MARCH 31

	Operating Funds				Restricted Funds				
	Operating Fund	Division of Prevention & Early Detection	Total 2000	Total 1999	Capital Fund	Research Fund	Trust Fund	Total 2000	Total 1999
REVENUES:									
Funding from the Department of Health - General Revenue Fund	$ 30,115,899	$ 1,981,229	$ 32,097,128	$ 27,745,204	$ 1,506,314	$ 345,000	$ —	$ 1,851,314	$ 402,600
Grants	—	—	—	—	—	325,478	—	325,478	179,162
Donations and bequests	—	—	—	—	—	—	306,682	306,682	212,955
Other income (loss)	881,116	39,120	920,236	878,051	(103)	334,736	—	334,633	(1,709)
	30,997,015	2,020,349	33,017,364	28,623,255	1,506,211	1,005,214	306,682	2,818,107	793,008
EXPENSES:									
Divisions and general administration									
Salaries and employee benefits	16,840,606	1,276,319	18,116,925	15,748,020	—	—	—	—	—
Drugs and medical supplies	8,182,217	—	8,182,217	6,323,992	—	—	—	—	—
Purchased services	1,530,522	—	1,530,522	1,317,431	—	—	—	—	—
Other operating expenditures	3,239,383	783,374	4,022,757	3,490,750	—	—	56,155	56,155	82,752
Research grants (Schedule 1)	—	—	—	—	—	959,157	—	959,157	804,383
Trust fund grants	—	—	—	—	—	—	48,045	48,045	58,121
	29,792,728	2,059,693	31,852,421	26,880,193	—	959,157	104,200	1,063,357	945,256
	1,204,287	(39,344)	1,164,943	1,743,062	1,506,211	46,057	202,482	1,754,750	(152,248)
Investment income	657,347	140,504	797,851	739,375	94,874	9,402	84,042	188,318	262,491
	1,861,634	101,160	1,962,794	2,482,437	1,601,085	55,459	286,524	1,943,068	110,243
Less amortization expense	—	—	—	—	2,421,692	—	—	2,421,692	2,425,328
Excess (deficiency) of revenues over expenses	1,861,634	101,160	1,962,794	2,482,437	(820,607)	55,459	286,524	(478,624)	(2,315,085)
Fund balances, beginning of year	5,694,477	2,135,631	7,830,108	5,863,887	23,768,055	80,959	1,277,945	25,126,959	26,925,828
Interfund transfers (Note 10)	(1,861,634)	(244,400)	(2,106,034)	(516,216)	2,348,605	13,465	(256,036)	2,106,034	516,216
Fund balances, end of year	$ 5,694,477	$ 1,992,391	$ 7,686,868	$ 7,830,108	$ 25,296,053	$ 149,883	$ 1,308,433	$ 26,754,369	$ 25,126,959

(see accompanying notes to the financial statements)

Statement 3

SASKATCHEWAN CANCER FOUNDATION
STATEMENT OF CASH FLOWS
YEAR ENDED MARCH 31

	2000	1999 (Note 12)
Cash resources provided by (used in):		
OPERATING ACTIVITIES:		
Excess (deficiency) of revenues over expenses (Statement 2):		
Operating fund	$ 1,861,634	$ 2,162,325
Division of Prevention & Early Detection	101,160	320,112
Research fund	55,459	(268,277)
Trust fund	286,524	279,077
	2,304,777	2,493,237
Net change in non-cash working capital (Note 4)	171,424	653,624
Net cash (used in) provided by operating activities	2,476,201	3,146,861
INVESTMENT ACTIVITIES:		
Net acquisition of capital assets	(730,819)	(1,438,209)
Net acquisition of investments	(2,019,850)	(330,172)
FINANCING ACTIVITIES:		
Payment from General Revenue Fund for capital assets	1,506,314	57,600
Other capital fund activities	94,771	41,843
Net change in cash resources during the year	1,326,617	1,477,923
Cash and short-term investments, beginning of year	4,157,005	2,679,082
Cash and short-term investments, end of year	$ 5,483,622	$ 4,157,005

(see accompanying notes to the financial statements)

Saskatchewan Cancer Foundation
Notes to the Financial Statements
March 31, 2000

1. *Legal Status of the Saskatchewan Cancer Foundation*

The Foundation was created under provisions of *The Cancer Foundation Act* and commenced operations on August 1, 1979. The Foundation conducts a program for the treatment and prevention of cancer.

2. *Significant Accounting Policies*

These financial statements have been prepared in accordance with generally accepted accounting principles and include the following significant policies:

a) Fund accounting

The accounts of the Foundation are maintained in accordance with the principles of fund accounting. For financial reporting purposes, accounts with similar characteristics have been combined into the following major funding groups:

Unrestricted Funds

i) Operating Fund

The Operating Fund reflects the operations of the Allan Blair Cancer Centre, the Saskatoon Cancer Centre, and their respective patient lodges. Also included are research, public education, and communication activities.

The Cancer Centres provide diagnostic services, treatment services in radiotherapy and chemotherapy, and follow-up services. They serve as the focal points for the co-ordination of a comprehensive and multi-disciplinary approach to all aspects of care and treatment for cancer patients. The patient lodges provide housing for rural patients who are undergoing treatment at the Cancer Centres.

Research activities include basic and epidemiological research. Basic research attempts to understand, at the cellular and molecular level, the underlying differences between normal and cancerous cells. Epidemiological research involves studying the distribution and determinants of various cancers in specific populations and the application of these studies to cancer control.

Public education and communications through written, oral, and visual media are integral components of a diverse cancer care program.

ii) Prevention & Early Detection

Prevention and early detection programs in this fund are aimed at minimizing the impact of cancer through prevention and control. The Screening Program for Breast Cancer has responsibility for screening mammography for women ages 50-69 years of age in the Province.

Restricted Funds

iii) Capital Fund

The Capital Fund reflects the equity of the Foundation in capital assets. The Capital Fund includes revenues received from the Department of Health - General Revenue Fund. Expenses are primarily amortization of capital assets.

iv) Research Fund

The Department of Health - General Revenue Fund has provided funding to enable the Foundation to support a number of research projects. The Department of Health has attached the following guidelines to the funds:

a) Expenditure of these funds is at the discretion of the Foundation. The Foundation will assume responsibility for research costs in excess of the amount funded.

b) Research funds, including investment income on the funds, should be kept separate from other funds of the Foundation.

Activities of the fund include clinical trials research which is a scientific method for testing new or combinations of existing treatment modalities against the current standard of treatment for that specific cancer.

v) Trust Fund

The Trust Fund accepts donations for contributions designated by the contributors to be used for such purposes as cancer research, equipment and library books. The Foundation maintains a record of the funds contributed and spent for each of the designated purposes until such funds are fully utilized.

b) Revenue

Unrestricted contributions are recognized as revenue in the Operating Fund in the year received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

Restricted contributions related to general operations are recognized as revenue of the Operating Fund in the year in which the related expenses are incurred. All other restricted contributions are recognized as revenue of the appropriate restricted fund in the year received or receivable.

c) Investments

Investments are valued at the lower of cost or net realizable value.

d) Capital Assets

Capital assets are recorded at cost. Normal maintenance and repairs are expensed as incurred. Capital assets are amortized on a straight-line basis over their estimated useful lives as follows:

Buildings	20 years
Leasehold Alterations	10 - 20 years
Equipment	5 - 10 years

3. *Capital Assets*

	2000			1999
	Cost	Accumulated Amortization	Net Book Value	Net Book Value
Land & Improvements	$ 280,297	$ —	$ 280,297	$ 280,297
Buildings	18,236,378	11,394,982	6,841,396	7,752,999
Leasehold Alterations	10,028,181	2,389,839	7,638,342	8,145,343
Equipment & Furniture	20,407,586	14,636,874	5,770,712	6,042,981
	$ 48,952,442	$ 28,421,695	$ 20,530,747	$ 22,221,620

4. *Net Change in Non-Cash Working Capital Balances Related to Operations*

	2000	1999
Decrease in accounts receivable	$ 100,607	$ 20,161
Decrease (increase) in prepaid expenses	38,652	(75,826)
(Decrease) increase in trade accounts payable	(65,579)	455,596
Increase in vacation accrual	77,423	60,692
Increase in deferred revenue	20,321	193,001
Net change in non-cash working capital balances related to operations	$ 171,424	$ 653,624

5. *Pension Plan*

The Foundation participates in The Public Employees' Pension Plan, a defined contribution pension plan, for the benefit of its employees. The Foundation's financial obligation to the plan is limited to making regular payments to match the amount contributed by the employees for current services. The Foundation's pension expense for 2000 amounted to $669,591 (1999 - $573,363).

6. *Commitments*

The Foundation is committed under term leases for office space at the following minimum amounts over the next five years (exclusive of proportionate increases and additional occupancy costs):

2001	$ 96,011
2002	25,927
2003	—
2004	—
2005	—

The Foundation has a $3 million commitment to complete the purchase and installation of radiation therapy equipment at the Saskatoon Cancer Centre during the next fiscal year.

7. *Cancer Patient Lodges*

The Canadian Cancer Society, Saskatchewan Division, has donated two cancer patient lodges in the Province to the Foundation. Under the terms of an agreement with the Society, the Foundation has assumed responsibility for the operations of these lodges. Title to the properties will remain with the Foundation so long as they are operated as cancer patient lodges.

8. *Related Party Transactions*

Included in these financial statements are transactions with various Saskatchewan Crown corporations, departments, agencies, boards and commissions related to the Foundation by virtue of common control by the Government of Saskatchewan and non-Crown corporations and enterprises subject to joint control and significant influence by the Government of Saskatchewan (collectively referred to as "related parties").

Drugs and purchased hospital services acquired from related parties are recorded at exchange amounts agreed to by the related parties. These transactions and amounts outstanding at year end are as follows:

	2000	1999
Expenses	$ 12,013,368	$ 10,467,257
Accounts payable	1,994,924	1,600,051

Routine operating transactions with related parties are settled at prevailing market prices under normal trade terms. These transactions and amounts outstanding at year end are as follows:

	2000	1999
Expenses	$ 1,577,718	$ 1,206,278
Accounts payable	108,633	32,603

In addition, the Foundation pays Saskatchewan Education and Health Tax to the Saskatchewan Department of Finance on all its taxable purchases. Taxes paid are recorded as part of the cost of those purchases.

The Regina Clinic is leased from the Regina District Health Board for $1 per year, including a portion of occupancy costs. The Saskatoon Clinic building owned by the Foundation is situated on land not owned by the Foundation. The Foundation is not charged for the use of this land.

Other amounts and transactions with related parties and the terms of settlement are described separately in these financial statements and notes thereto.

9. *Financial Instruments*

a) Significant terms and conditions

There are no significant terms and conditions related to financial instruments classified as current assets or current liabilities that may affect the amount, timing and certainty of future cash flows.

b) Interest rate risk

The Foundation is exposed to the following interest rate risk when the value of its financial instruments fluctuate due to changes in market interest rates:

- The interest rate risk for the Foundation's receivables and payables is minimal because they are non-interest bearing and of a short-term nature.

- As market interest rates fluctuate, the market value of long-term investments moves in the opposite direction. This risk will affect the selling price of investments if they are sold prior to maturity. Due to the size and nature of the Foundation's investment portfolio and its future cash flow needs, the Foundation is able to manage the timing of investment disposals in a manner that minimizes the interest rate risk.

c) Credit risk

The Foundation is exposed to credit risk from potential non-payment of accounts receivable or investment income and principle. The credit risk for the Foundation's receivables is minimal because they are mostly from the Department of Health – General Revenue Fund or other government organizations. The credit risk for the Foundation's investments and related accrued interest receivable is minimal because investments consist of provincial government bonds and debentures, corporate bonds, and guaranteed investment certificates with large Canadian banks.

d) Fair value

The following methods and assumptions were used to estimate the fair value of each class of financial instrument:

- The carrying value of the following financial instruments approximate fair value due to their immediate or short-term nature:
  Cash and short-term investments
  Accounts receivable
  Accounts payable

- For investments, the fair value is considered to approximate quoted market values.

10. *Interfund Transfers*

Interfund transfers consist of funds transferred from the Operating, Division of Prevention and Early Detection, Research, and Trust Funds to the Capital Fund to finance the purchase of capital assets and funds transferred from the Operating Fund to the Research Fund for research activities.

11. *Budgets*

Schedule 3 compares actual expenditures to Board approved budgeted expenditures for the year ended March 31, 2000.

12. *Comparative Information*

Certain 1998-99 balances have been reclassified to conform with the current year's presentation.

13. *Uncertainty due to the Year 2000 Issue*

The Year 2000 Issue arises because many computerized systems use two digits rather than four to identify a year. Date-sensitive systems may recognize the year 2000 as 1900 or some other date, resulting in errors when information using year 2000 dates is processed. In addition, similar problems may arise in some systems which use certain dates in 1999 to represent something other than a date. Although the change in date has occurred, it is not possible to conclude that all aspects of the Year 2000 Issue that may affect the entity, including those related to customers, suppliers, or third parties, have been fully resolved.

Schedule 1

SASKATCHEWAN CANCER FOUNDATION RESEARCH FUND
SCHEDULE OF RESEARCH GRANTS
YEAR ENDED MARCH 31

	2000	1999
Participation in North Central Cancer Treatment Group	$ 460,906	$ 378,440
Participation in Children's Cancer Group	215,088	175,084
Research Director Fund, Saskatoon	415	1,256
Cell Surface Characteristics of Metastatic Cells in Human Tumors, Saskatoon	71,192	56,833
Novapharm Biotech, Saskatoon	—	(2,379)
Molecular basis of B72.3 Combining Sites and Synthesis, Saskatoon	53,027	78,019
Radiation Therapy Oncology Group, Saskatoon	35,580	28,929
Ovarian Cancer in Saskatchewan Patients, Saskatoon	—	5,348
Identification of p85 SH2 Binding Proteins, Saskatoon	14,319	60,596
C-Src and Colon Cancer, Saskatoon	17,284	10,048
Genomic Instability	10,593	4,263
Prostate Patient Immobilization	1,423	13,328
Cranial Irradiation Revisited	12,161	—
Role of A-Raf-1	68,368	—
Total	960,356	809,765
Less capital expenditures	(1,199)	(5,382)
	$ 959,157	$ 804,383

(see accompanying notes to the financial statements)

Schedule 2

SASKATCHEWAN CANCER FOUNDATION
SCHEDULE OF INVESTMENTS
YEAR ENDED MARCH 31, 2000

	Carrying Value	Maturity Date	Effective Rate
CASH AND SHORT-TERM INVESTMENTS:			
Cash:			
Royal Bank of Canada	$ 4,285,872	—	4.82%
Short-term investments:			
Canadian Western Bank GIC	900,000	08/14/00	5.50%
Bank of Nova Scotia Euro Bond	297,750	03/08/01	6.81%
	1,197,750		
	5,483,622		
LONG-TERM INVESTMENTS:			
Province of Saskatchewan Savings Bond	300,000	07/15/01	5.50%
Province of Saskatchewan Savings Bond	2,000,000	07/15/03	5.00%
Province of Ontario Bond	1,995,200	09/12/07	6.25%
Province of Saskatchewan Savings Bond	497,000	05/28/08	5.58%
Province of Manitoba Bond	995,000	06/02/08	5.90%
Province of Saskatchewan Savings Bond	489,650	06/02/08	5.88%
Royal Bank of Canada Bond	993,860	06/11/09	5.24%
Province of Manitoba Bond	988,700	09/01/09	6.51%
TD Capital Trust Securities	350,000	12/31/09	7.75%
Bank of Nova Scotia Bond	1,018,500	07/22/13	5.54%
Bank of Nova Scotia Bond	489,250	05/12/14	6.13%
Province of New Brunswick Bond	496,800	12/27/17	6.06%
Province of Newfoundland Debentures	1,024,500	04/17/28	5.97%
	11,638,460		
Total cash and investments	$ 17,122,082		

(see accompanying notes to the financial statements)

Schedule 3

SASKATCHEWAN CANCER FOUNDATION
COMPARISON OF BUDGET TO ACTUAL
YEAR ENDED MARCH 31, 2000

	Operating Fund		Division of Prevention & Early Detection	
	Actual	Budget	Actual	Budget
REVENUES:				
Funding from the Department of Health – General Revenue Fund	$ 30,115,899	$ 29,466,364	$ 1,981,229	$ 1,981,236
Other income	881,116	549,039	39,120	156,500
	30,997,015	30,015,403	2,020,349	2,137,736
EXPENSES:				
Salaries & employee benefits	16,840,606	18,067,605	1,276,319	1,370,308
Drugs and medical supplies	8,182,217	8,110,134	—	—
Purchased services	1,530,522	1,623,408	—	—
Other operating expenditures	3,239,383	3,045,877	783,374	887,428
	29,792,728	30,847,024	2,059,693	2,257,736
	1,204,287	(831,621)	(39,344)	(120,000)
Investment income	657,347	400,000	140,504	120,000
Excess (deficiency) of revenues over expenses	$ 1,861,634	$ (431,621)	$ 101,160	$ —

(see accompanying notes to the financial statements)

Research Projects

The Agency provided funding valued at $959,000 for the following research projects:

Participation in Clinical Trials of the North Central Cancer Treatment Group (NCCTG) and National Cancer Institute of Canada (NCIC) Clinical Trials - Tirona, M., Walley, B. and Keller, O.

In 1999-2000, 54 cancer patients and 11 cancer control patients were accrued in the NCCTG clinical trials. Twenty-five patients were accrued in NCIC clinical trials.

Participation in Children's Cancer Group (CCG) – Regina – Goh, T.

From April 1, 1999 to March 31, 2000, 16 patients were registered with CCG. Seven patients were enrolled in 6 therapeutic and 7 non-therapeutic studies. Nine patients were not on therapeutic studies for various reasons and were given standard treatment. During this period 18 new CCG studies were approved. Fifty-three protocols received annual re-approval and 19 addenda were also approved.

Participation in Children's Cancer Group (CCG) – Saskatoon – Ali, K.

Between April 1, 1999 and March 31, 2000, 32 new pediatric cases were seen at the Saskatoon Cancer Centre. Of these 32 new patients, 7 were enrolled in non-therapeutic studies while 3 were on therapeutic studies. Due to various reasons, 18 of these patients were not able to be placed on therapeutic studies and therefore were given standard treatment. During this time period, 9 new studies were approved. Eighty-seven protocols received annual re-approval and 33 addenda's were also approved.

Participation in Radiation Therapy Oncology Group (RTOG) Clinical Trials – Saskatoon – MacLennan, I.

During the year there were seven new patients who volunteered to enter RTOG clinical trials at the Saskatoon Cancer Centre. Forty patients who have completed treatment are being followed to assess the results of treatment and detect complications. There are seven clinical trials actively accruing patients and ten clinical trials open for follow-up purposes. The active studies include four prostate trials and one each for head and neck cancer, anal cancer and bony metastatic disease.

Affiliate Membership in Radiation Treatment Oncology Group (RTOG) and Enrolment of Patients in the Group's Clinical Research Protocols – Regina – Ago, C.

Allan Blair Cancer Centre's application for affiliate membership in RTOG was accepted in the summer of 2000. Our full member institution is the Cross Cancer Institute. We will activate the membership as soon as the Institutional Review Board commences its activities.

Prophylactic Cranial Irradiation Revisited: Provincial Database of Small Cell Lung Cancer from Saskatchewan, Canada, 1946-1998 – Tai, P., Yu, E. and Tonita, J.

The project is completed. Abstracts have been accepted in CARO and ASTRO meetings. Consequently, they will appear in the conference proceedings. We also received an invitation from the International Journal of Radiation Oncology, Biology, Physics (the top journal in the radiation oncology field) to send the manuscript there. We are now working on the final draft and the manuscript will be sent out soon.

Role of Sialyltransferase-1 in Tumor Metastasis – Carlsen, S.

This project involves delineating some of the unique properties of tumor cells capable of metastasis. Using a rat breast tumor model system, we have identified a series of genes whose expression is specifically turned off in highly metastatic cells. We are currently cloning and characterizing these genes. We have also found human homologues of these genes and work is currently in progress to look at the expression of these genes in human metastatic cells

Role of A-Raf-1 in Signaling Pathways – Anderson, D.

Our main progress over the past year has been twofold. First, we have established an appropriate expression system (baculoviral) to obtain large amounts of A-Raf protein for study, since a bacterial expression system could not be used. Purification of the A-Raf protein has allowed us to carry out various binding experiments and to test factors that may affect the activity of this protein. Second, we have identified all four binding sites on the A-Raf protein that allow it to bind to the p85 SH2 domains. One of these sites was the predicted site based on earlier work in the laboratory, while the other three contain similar sequences. This work has been submitted for publication. Future experiments will use a mutant A-Raf protein that does not bind to the p85 protein to characterize the function of the A-Raf:p85 complex within cells.

Molecular Basis of B72.3 Combining Sites and Humanization of B72.3 Antibody by Resurfacing Variable Domains Under the Guidance of Molecular Modeling – Xiang, J.

Using a computational model of the antibody-antigen complex B72.3/TAG72, 17 complementarity-determining region residues were defined. The model was tested using site-directed mutagenesis and found to be accurate in many of its features suggesting that the computational modeling approach is a useful method to study antigen/antibody complexes. The results of the computer modeling are currently being used to increase the expression level of recombinant antibody fragments.

C-Src and Colon Cancer – Bonham, K.

Funding for this study was subsequently obtained from the Medical Research Council of Canada. This project investigates the regulation of the human SRC gene which encodes the tyrosine kinase pp60c-src.

Prostate Patient Immobilization Study – Cadman, P., Sidhu, N., Lapointe, C. and McLennan, I.

This study is concerned with the measurement of random and systematic setup errors for patients being treated with radiation for prostate cancer. This data is essential for determining the appropriate treatment margins to include in the radiation field design in order to account for patient setup variations and to provide adequate coverage of the prostate tumor volume. During the period from April 1, 9999 until March 31, 2000 we were able to initiate the second arm of the study in which patients were immobilized in a supine position with a Vac Lok cushion. This arm of the study was

discontinued, since it was quickly determined that the supine immobilization technique chosen produced a setup reproducibility that was inferior to that obtained with no immobilization (arm I). The third arm of the study began in March of 2000 and had accrued 2 patients by March 31, 2000. We are determined to complete the entire study this research year.

The Agency received funding from external organizations valued at $653,000 for the following research projects:

N-Myristoyltransferase: A Novel Molecular Target for Cancer – Dr. Sharma

Funding provided by the Medical Research Council of Canada

Transforming Growth Factor Beta-1 Resistance in Human Acute Leukemia – Drs J. DeCoteau, A. Magliocco and D. Demetrick

Funding provided by the Medical Research Council of Canada

Targeting Cytokine to Tumors by Novel Recombinant Fusion Proteins and Adenovirus-mediated gene transfer – Dr. Xiang

Funding provided by the Medical Research Council of Canada

Regulation of c-Src Expression in Human Cancer Cells – Dr. Bonham

Funding provided by the Medical Research Council/Regional Partnership Program

The Role of A-Raf in Signaling Pathways – Dr. Anderson

Funding provided by the Medical Research Council of Canada Regional Partnership Program

Conformationally Constrained Recombinant Peptides with the Binding Affinity for the Tumor-specific NeuAca2-6GalNAc1-O-Ser – Dr. Xiang

Funding provided by the Natural Sciences and Engineering Research Council of Canada

Protein: Protein Interactions in Lysosomal Targeting – Dr. Anderson

Funding provided by the Natural Sciences and Engineering Research Council of Canada

Research Projects

DNA Hypermethylation in Hematolymphoid Malignancies – Drs. Lowsky and DeCoteau

Funding provided by the Health Sciences Utilization Research Commission-Establishment Grant.

DNA Mismatch Repair in Human Acute Leukemia - J. DeCoteau, and A Magliocco

Funding provided by the Health Services Utilization and Research Commission

Calmodulin-Regulated Proteins in Heart – Dr. Sharma

Funding provided by the Heart and Stroke Foundation of Saskatchewan

Role of Estrogen and Progesterone Receptor Isoforms in the Invasion of Breast Carcinoma – Dr. Chibbar

Funding provided by the Canadian Breast Cancer Foundation

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Tonita J. Cancer in Saskatchewan. Guest Lecturer. Saskatchewan Association of Medical Radiation Technologists Conference, Prince Albert, Saskatchewan, October 21, 1999.

Warren J. Treatment of Prostate Cancer with High Dose Rate Brachytherapy at the 2000 CAMRT (Canadian Association of Medical Radiation Technoligists) National Conference in Toronto.

Sylvia Fedoruk Prize in Medical Physics

Dr. Sylvia O. Fedoruk, a Medical Physicist with 35 years of dedicated and distinguished service to the Saskatchewan Cancer Program, retired in December 1986. On the occasion of Dr. Fedoruk's retirement, the Board of the Cancer Agency announced the establishment of the Sylvia Fedoruk Prize in Medical Physics in her honour and in recognition of her contributions to cancer control.

This annual award is presented to the author selected as having published the best paper in Medical Physics in the preceding year, and must relate to work carried out within a Canadian institution. An anonymous selection committee, appointed jointly by the Canadian College of Physicists in Medicine and the Canadian Organization of Medical Physics, reviews the entries and recommends the successful candidates.

The award has been presented to:

(1987) ROBERT NISHIKAWA, GORDON MAWDSLEY, AARON FENSTER, MARTIN YAFFE, co-authors of the paper "Scanned-projection digital mammography", published in **Medical Physics.**

(1988) T.R. MACKIE, A.F. BIELAJEW, D.W.O. ROGERS, J.J. BATTISTA, co-authors of the paper "Generation of photon energy deposition kernels using the EGS Monte Carlo code", published in **Physics in Medicine and Biology.**

(1989) DUNCAN GALBRAITH, author of the paper "Low energy imaging and high-energy bremsstrahlung beams", published in **Medical Physics.**

(1990) ALEX BIELAJEW, author of the paper "On the technique of extrapolation to obtain wall correction factors for ion chambers irradiated by photon beams", published in **Medical Physics.**

(1991) QING-SAN XIANG, R. MARK HENKELMAN, co-authors of the paper "Motion artifact reduction with three-point ghost phase cancellation", published in **Journal of Magnetic Resonance Imaging.**

(1992) D.L.D. MASON, J.J. BATTISTA, R.B. BARNETT, A.T. PORTER, co-authors of the paper "Ytterbium-169: calculated physical properties of a new radiation source for brachytherapy", published in **Medical Physics.**

(1993) JOHN M. SABOL, IAN C. SOUTAR, DONALD B. PLEWES, co-authors of the paper "Mammographic scanning equalization radiography", published in **Medical Physics.**

(1994) R.M. HENKELMAN, G.J. STANISZ, J.K. KIM, M.J. BRONSKILL, co-authors of the paper "Anistrophy of NMR properties of tissues", published in **Medical Physics.**

(1995) WEI ZHAO, JOHN ROWLANDS, co-authors of the paper "X-ray using amorphous selenium: Feasibility of a flat panel self-scanned detector for digital radiology", published in **Medical Physics.**

(1996) CHRIS HENRY, TERRY PETERS, co-authors of the paper "Three-dimensional reconstruction of vascular trees. Theory and methodology", published in **Medical Physics.**

(1997) COREY ZANKOWSKI, ERVIN PODGORSAK, co-authors of the paper, "Calibration of photon and electron beams with an extrapolation chamber", published in **Medical Physics.**

(1998) ROBIN KELLY, KEVIN JORDAN, JERRY BATTISTA, co-authors of the paper, "Optical CT Reconstruction of 3D Dose Distributions using the FBX Gel Dosimeter", published in **Medical Physics.**

(1999) PRATONDO BUSONO, ESAM HUSSEIN, co-authors of the article, "Algorithms for density and composition-discrimination imaging for fourth-generation CT systems", published in **Physics in Medicine and Biology.**